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A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

Farm Prices Spurt Again

Rises Revive Inflation Scare

Overshadowing all other developments in the economy during the past few weeks and particularly in agriculture was the spectacular spurt in farm commodity prices touched off in the middle of February and continuing into March. Within the space of two to four weeks, rises of 15 to 25 per cent occurred in wheat, corn, oats, hogs, butter, and eggs. Chicago prices of wheat for March delivery rose from \$2.20 to \$2.95 a bushel and higher; corn advanced from \$1.35 to above \$1.80; and oats were up from 77 cents to a dollar. The top on hogs in mid-February was \$25, but within two weeks hog prices had punched through the \$30 level, a rise of 20 per cent. Prices paid country shippers for 92 score butter moved up from less than 67 cents to 76 cents by early March. The advance on top grade eggs was from 39.5 cents in mid-February to 46 cents by March 6.

Before these upsurges it was generally conceded that the trend in farm commodity prices was on the whole slightly downward. Prices paid to farmers had swept upward to new levels, reaching peaks in last October to December for most groups. Prices for feed grains and hay had declined from a peak last July, leveling off after November. Food grains were the exception, continuing to move up gradually during the past year. Meat animal prices had shown a slight downward movement from October until the rise in February. Prices of oil-bearing crops rose sharply following the lifting of price ceilings in late October but have since remained fairly stable. For the dairy products group the trend had been downward since the December peak was reached. The poultry and egg price group, as shown on the chart, had experienced a sharp downward adjustment from the October level. Some of the price changes in these groups are, of course, to be considered normal seasonal movements. Taken all together, however, the combined trend of these major groups was slightly downward.

INFLATION AGAIN?

The recent upsurge in prices has been headline news because these seemingly sudden developments have raised again the question of whether they indicate another spurt or spiraling of inflationary price rises. The advances will have their effect on the cost of living. This leads some observers to anticipate further pressure for wage and price adjustments, thus adding fuel to the fires of further inflation. The importance of these recent and rather sensational rises as inflationary factors depends upon the duration of the influences that have induced the rises.

As far as the over-all economy is concerned, it seems to be the majority opinion that inflationary pressures have to some extent diminished, that much of the slack has been taken up, and that before 1947 has passed, some economic readjustments will have occurred making for lower prices.

Whether such readjustments are called "depression," "recession," or some other psychologically less dangerous terms makes little difference. The consensus of opinion appears to be that the pressure will be for lower prices. Specifically on farm products, Department of Agriculture economists have again reiterated their expectation of a business downturn later in 1947, based largely on the declining purchasing power of salary and wage earners.

If such observations on the future of prices this year are correct, the recent rises in commodities must be presumed to be only temporary and due to temporary situations. That this is in part true is revealed by an examination of the factors influencing specific commodities.

HUNGRY WORLD VERSUS GRAIN BOTTLENECKS

Food shortages and crises in the feeding of the world's hungry people continue to exert pressure on American grain supplies and generally add up to larger needs than anticipated. Government officials recently stated that, given reasonably good fortune in shipping and transportation, this country will have met a goal of 400 million bushels of grain shipped abroad during the current crop year ending June 30. Moreover, this report indicated the goal would probably be met by May 1, leaving two additional months in which the goal could be exceeded and distress further alleviated. For the 1947-48 crop year, present estimates, both official and unofficial, suggest a continuation of heavy exports of grain during the next crop year.

In fulfilling these goals, the Government, buying through Commodity Credit Corporation, has been a factor of key importance in the grain markets, particularly in wheat and corn. At the time the rapid rise in wheat prices began, in the middle of February, the Government was not buying wheat in important amounts, although traders were actively bidding to fulfill such commitments. Direct Government purchases of wheat from early September to mid-February alone were approximately 100 million bushels, and in the week just preceding the wheat price upsurge, the Government was buying flour at a rate equivalent to three million bushels of wheat. This put pressure on millers to buy replacement stocks and to obtain wheat in order to get cars for flour shipment.

In addition to these rather high purchases of wheat, there have been periods during the current season when grain exports were made up of nearly one-third each of flour and corn. These pressures on the demand side tell only a part of the story of the price spurt. On the supply side, events conspired to make for a very tight situation in the grain markets. Confining weather prohibited the farm-to-elevator marketing of what little grain might otherwise have eased

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The Inventory Controversy

Are Rising Stocks of Goods a Danger Signal?

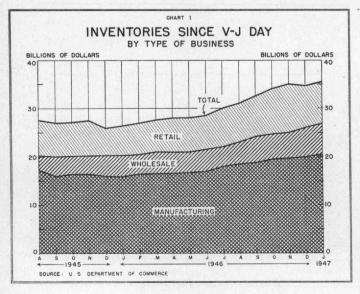
Despite the goods hunger of final consumers, business inventories rose after V-J Day to an all-time record high level of 35.8 billion dollars in January 1947. This peak represents a 34 per cent increase over the August 1945 figure of 26.7 billion dollars; the entire increase has been accumulated since March 1946. If some 4.5 billion dollars of war inventories liquidated through contract termination are excluded from the V-J Day figure, the percentage by which inventories have risen moves above 60.

The increase in inventories has shown some leveling tendencies at the retail level, but its end is not in sight. The Office of Temporary Controls will end most remaining inventory curbs March 31, and expects the upward movement to continue at least through 1947. The increase in inventories has been observable at all levels of business, manufacturing, wholesale, and retail, as shown in Chart 1. There is no statistical information concerning the inventories held by consumers, but these have certainly risen as well.

While all inventory statistics are in money value terms, the increased dollar volume all along the line reflects physical accumulation as well as postwar price increases. It is difficult to deflate with price indexes to obtain a reliable estimate of the physical volume increase because of the intermingling of "lifo" and "fifo" methods of inventory valuation. The U. S. Department of Commerce nevertheless has estimated 1946 inventories as from 5 to 10 per cent above the best previous peacetime year in physical volume.

INVENTORIES IN THE BUSINESS CYCLE

Expenditures for currently produced goods are provided at the present time by purchases for net inventory accumulation as well as for final consumption. Eventually all or



most of the inventory pipe-lines will be filled, as the pipelines for canned fruit juices and frozen fruits were filled in January. Inventories will be built up and purchases for accumulation will fall to zero. More than this, there may be inventory liquidation, with accumulated inventories competing with current production on a buyers' market.

If such a movement is sharp and sudden, business in general may be unable to adjust to the elimination of the "inventory" segment of its market without such characteristic depression symptoms as falling incomes, rising unemployment, and business failures. The experience of 1920-21 is definitely in point. On the other hand, if the building up of inventory is sufficiently gradual, a transition may come almost imperceptibly, industry by industry and perhaps firm by firm. It need involve no widespread "recession," let alone a "bust," although individual firms and industries will be squeezed as canned and frozen fruit producers were squeezed in January.

At the present time some observers see the recent and continuing increases in inventories as an ominous sign of rapidly filling pipe-lines and of an early recession in the offing. Certain pessimists in this group predicted a serious slump in January, centering in textiles, as a post-holiday reaction. When January passed with no general slump, the critical date was moved forward to April, after Easter. Other analysts, however, see the inventory accumulation as little if anything more than the normal consequence of high postwar income and consumer expenditures. Inventories, they point out, and finished goods inventories especially, are low as related to shipments, to sales, and to orders. Many pipe-lines, primarily in the fields of metal products and building materials, remain unfilled. From this point of view, there is little evidence to justify forecasts of an early or precipitous end to buying for inventory or for immediate alarm over the general inventory situation.

COMPOSITION AND BALANCE

The increase in inventories at the manufacturers' level is concentrated in "purchased materials," a category broader than "raw materials" in the strict sense. More than justifiable publicity was given throughout 1946 to "involuntary" inventories of unfinished goods delayed by shortages of materials, labor, or transportation, in view of the relatively constant and minor role of "goods in process" in inventory statistics (see Chart 2). A U. S. Department of Commerce study published in the October Survey of Current Business showed the volume of "goods in process" inventory at almost precisely its prewar relationship to shipments of goods. During recent months, the importance of goods in process may have declined further; business men have geared their inventory policies to their scarcer items rather than to pro-

duction plans or the rated capacities of their plants. As for "finished goods" inventories held by manufacturers and others, they have not increased in undue proportion to sales. The official figures minimize the importance of inventory hoarding for speculative purposes, although individual instances of hoarding have been common.

Two neglected factors in the rise of business inventories in practically all fields have been the sharp increase in the business population from its depressed wartime level and the partial revival of wholesaling from a temporary eclipse. New businesses obviously require inventories, frequently higher than others in proportion to initial sales; the recovery of wholesaling also has a net decelerating effect on the movement of goods to final consumers.

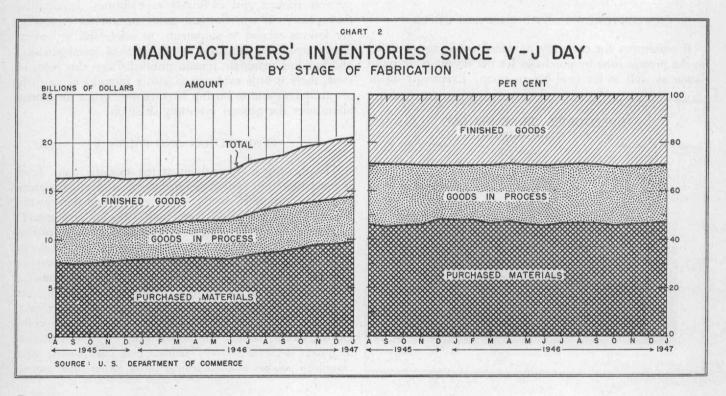
Like all over-all figures, inventory statistics conceal divergent movements in their components as do the stock-sales ratios derived from them. Granted that stock-sales ratios have not risen abnormally on the whole, the elimination of individual scarce items held in abnormally small amounts may alter the picture. Addition of outstanding orders to actual inventories on hand, as is done in department store statistics, may also change the total picture in an unfavorable direction, in view of prospects for increasing deliveries of finished products in the spring and summer of 1947.

Less is being heard of "unbalanced" inventories at the retail level than was the case in the autumn and winter. Nevertheless, the problem of unbalance has not been solved in retail trade, and many writers believe that little progress has been made in the manufacturing and wholesale fields.

Pipe-lines of finished non-durable goods are filling with a fair degree of rapidity, although manufacturers' inventories are somewhat below their values as predicted from the prewar relationship to shipments by the U. S. Department of Commerce. In metal products, chemicals, lumber, and building materials, the filling process has been comparatively slow, but manufacturers' total inventories are shown as high with relation to shipments in the same Department of Commerce study. The anomaly is explained by the greater importance of purchased materials and goods in process in durable goods inventories.

Within a broad category such as textiles, women's wear is in reasonably adequate supply at high prices, while shortages persist in many articles of masculine apparel. Replenishment of inventories has progressed in many items to the point where stores carry most items in stock, but shoppers complain of incompleteness in the lines carried. Different sizes, colors, styles, qualities, etc. are seldom available in the proportions sought by consumers. For example, a large Seventh District department store received a substantial shipment of men's white shirts, priced to sell at approximately a dollar below the prevailing high price—but only in the unusual size 14-33. Upholstered furniture is available, but the waiting list remains in effect for "case goods."

Certain of these points can be brought out numerically by reference to the history of stock-sales ratios in individual departments of Seventh District department stores since 1941 (see Chart 3). With seasonal factors eliminated by comparing the same month for different years, widely divergent patterns are found in the several departments. For the stores as a whole, the stock-sales ratios remain low in 1946 compared with 1941, although they are rising above their 1945 figures. For certain departments, such as men's clothing and major household appliances, the recovery from the postwar lows is only barely apparent. For others, however, including women's clothing and furniture, the 1941 figure has been reached or surpassed. (These data should be interpreted in the light of a long-term trend toward lower stock-sales ratios in most branches of retail trade.)

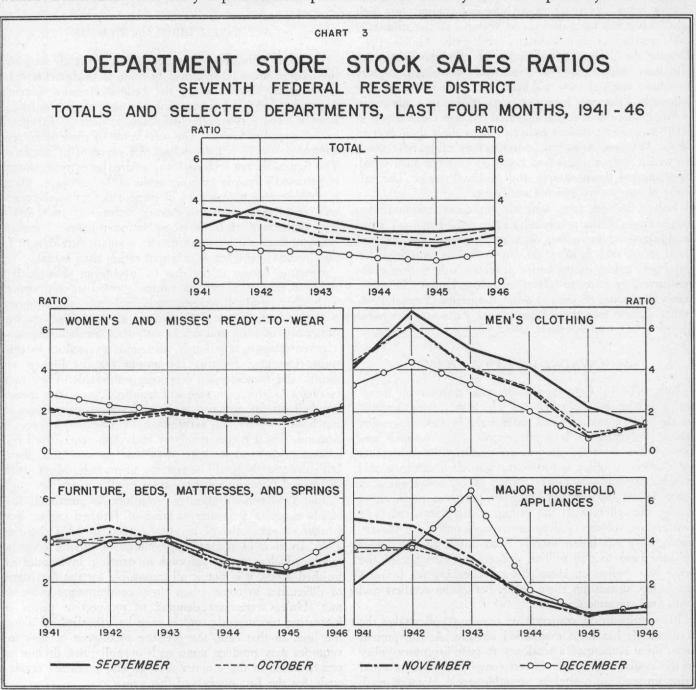


The problem of balance in inventory, as has been said, involves more than balance between obviously different physical commodities. In the household appliance field, among others, the problem is also one of balance between well-known and lesser-known brands of merchandise. Previously, unknown brands tended to appear or reappear somewhat earlier than the prewar leaders. After the leading brands put in their appearance in quantity, certain of the "new" products retained consumer acceptance, but others became "off-brands," drugs on the market, while leading brands of nearly identical products remained in great demand. In the garment trades the problem of style change also enters. Inventories of 1946-and-earlier models of women's clothes have moved slowly despite substantial price

discounts, but manufacturers expect no difficulty in disposing of substantial stocks of new 1947 fashions. The turnover rates of toys and household utensils made from wartime "ersatz" materials, plastic and otherwise, have been much lower than those of postwar products made from standard metals and wood. Wartime water-packed canned fruit has sold badly, while fruit packed in heavier syrup has moved readily. This distinction is becoming less important as the wartime products are disposed of.

POST-HOLIDAY CLEARANCES

A post-holiday dumping of slow-moving and excessive inventories in many lines was expected by some observers



to set in motion a sharp price decline on a broad front. Developments early in December accentuated this beliefsales below expectations, leading to pre-Christmas price cutting in such luxury lines as furs and costume jewelry. It is clear that no such movement actually occurred. Consumer expenditures, it is true, are not maintaining their summer and autumn margins above the previous year's dollar volume. This is due in part to the sudden rise in 1946 retail sales which began in February and March. Preliminary estimates for the first ten weeks of 1947 indicate a dollar volume 10 to 17 per cent above the corresponding weeks of 1946 for the nation as a whole, and therefore suggest some decrease in the physical volume of sales. Department store figures especially point to an appreciable decline below last year's record physical volume, but their significance has been discounted because of the unusually cold weather of late February and early March 1947. Despite the disappointing aspects of this showing, price falls have been limited to a relatively few lines. Luxury furs have received most publicity, but have recovered subsequently. Price cuts have not spread to many staple items.

Post-holiday markdowns operated to correct unbalance in retail inventory positions rather than to slash their over-all totals. Wartime substitute merchandise, off-brands, goods on which style changes had occurred or were anticipated, were marked down sharply and eventually sold. The ma-

jority of items were affected much less.

Federal income taxes were an important feature underlying certain of the post-holiday price cuts. For many retail establishments, including department stores, the tax and fiscal years end January 31. In order to minimize tax liabilities, it was desirable for concerns anticipating eventual inventory losses to take them before January 31, 1947, when they could be used to offset the profits of fiscal 1946, rather than to take them later against the somewhat lower profits anticipated for fiscal 1947.

CONSERVATIVE INVENTORY POLICY

Influenced by 1946 experience with unbalanced inventories and by the slight declines which may have occurred in the real volume of retail trade early in 1947, inventory policy is shifting, at least temporarily, in a cautious and conservative direction. Buyers are cutting the volume of their orders, or ordering for shorter periods in advance, and eliminating duplicate orders. When orders arrive ahead of schedule, buyers are beginning to postpone payment or charge the sellers with the storage charges involved. The outstanding volume of department store orders for the entire country has fallen sharply from 1,073 million dollars in July 1946 to 558 million dollars in December of the same year. Sellers on their part are checking for firmness the orders already on their books, both from retailers and from final consumers.

In manufacturing, conservative inventory policy takes the form which has been mentioned already. At the present time, there is more of a tendency to gear inventory policy to the availability of the scarcest components and to avoid tying up working capital in unusable stocks of more avail-

able items. In retailing, including especially department stores, conservatism takes the form of at least a temporary shift toward caution in buying for next summer and fall.

If prices of finished goods, like those of basic grains and metals, resume the upward trend interrupted during the winter of 1946-47, this policy of caution and conservatism may be reversed overnight. Any rise in prices furthers the acquisition of inventory for speculative purposes. In addition, sales have for several years been limited by inventory rather than by consumer demand. Many buyers, purchasing agents, and price executives now at work have no recent experience in periods when the situation was different, and it is difficult to induce them to alter their habitual pattern of scrambling for inventory.

ARE INVENTORIES DANGEROUS?

Inventory unbalance or overexpansion is already straining the current financial resources of some individual firms. In the Seventh District alone, the Federal Reserve System's November survey of outstanding commercial and industrial loans showed 3,140 individual loans secured by inventory out of a total of 76,600. The total value of these loans was approximately 12 million dollars, 5.5 per cent of the total. The figures do not include loans secured to carry inventory but secured primarily by other assets of the borrower. There is, nevertheless, no evidence of present danger to the economy as a whole from the existing volume of inventories. The percentage of firms facing iminent financial embarrassment from excessive inventories is small. Any danger in the inventory situation is potential rather than actual.

Potential danger is not due to inventories directly, but rather to their present high volume viewed in conjunction with other trends. Inventories may embarrass the economy if one or both of two developments arise: decline in consumer expenditures and rise in output of finished products.

Inventories are notoriously vulnerable to declines in consumer spending. Existing inventories are the highest on record, and therefore are especially vulnerable. They may become excessive with ease and rapidity if consumer spending falls off for any reason—buyers' strikes, exhaustion of purchasing power, or satisfaction of wartime arrears in demand. Easter comes relatively early this year (April 6). Consumer demand is expected to hold up well until then, but subsequently it will be tested continuously. Many trade union and Government economists predict a decline.

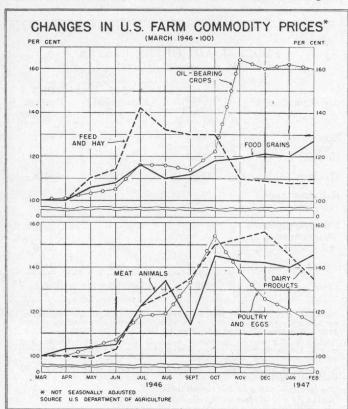
The 1946 concentration of inventory in purchased materials suggests a greater volume of finished output per worker or per dollar of invested capital in 1947 than in 1946. In view of the existing volume of buying commitments which are not reflected in existing inventories of finished goods, it is not at all impossible for the first signs of difficulties to come when these commitments must be met. Unless consumer demand at prospective prices is increasing concurrently, orders may be cancelled all along the line. In that case, the pressure to dispose of new inventories may produce some such over-all price decline as was observed in the summer of 1920 and predicted erroneously for the first quarter of this year.

FARM PRICES SPURT AGAIN

(Continued from Inside Front Cover)

the situation a little, but what is more important, the weather hampered the already strained transportation facilities, aggravating the difficulties of getting grain to terminal markets. With boxcars for grain under priority allocation by the Interstate Commerce Commission, grain markets' supplies of grain were very low. It is generally reported that elevators are stuffed with grain, and that if cars had been available to move it, the markets would have had a much more nearly normal supply. Under the existing situation most of the grain reaching markets represented delivery on commitments, and there was, therefore, during the critical period, very little "free" grain.

Once all these factors had combined to set off a price rise, some additional speculative interest was attracted to the markets, and the rise was felt in other commodities not directly affected by the tight supply and demand relationships. At the present time there is very little in the situation to suggest major declines in grain prices, at least during the balance of the marketing season. Moreover, reports on world crop production, the conclusions from the Hoover European food surveys, and other estimates of world grain needs for the next twelve months are all indicative of a strong demand for grains. Semi-official statements currently being made suggest that heavy exports of American grain will be called for up to the 1948 crop harvest abroad. Some of these estimates run as high as 500 million bushels for the 1947-48 crop year. Such expectations would tend to confirm the belief that firmness in grain prices at high levels is apt to continue for several months. The current requests for additional funds for expenditure abroad tend also to strengthen



commodity prices because it is implied that a substantial part of such funds will be used to purchase food for shipment to the aided countries.

HOG PRICES REFLECT SCARCITY

The most sensational development in farm prices during the upsurge, at least from the standpoint of the general consuming public, was the rapid rise in hog prices. To many who follow livestock markets closely the rise in hog prices came as no surprise and was freely predicted several weeks before the peak was reached. Commission men are known to have been advising prospective shippers in January

that the hog market would go to \$30.

Hog production has been declining since the high peak of output in 1943. High-priced and scarce feed, labor and disease difficulties, and price uncertainties had combined to stimulate a downward adjustment. But demand for meats continued strong, and in relation to market demand hog producers apparently overdid the reduction. Numbers of hogs on farms at the beginning of this year were seven per cent below a year earlier. The 1946 fall pig crop was 11 per cent below that of the previous fall, and the smallest crop since 1940. Storage stocks of pork and pork products were considerably below normal. These facts, working at a time in the season when market receipts are declining, combined to give a situation in which supplies were considerably short of what an active market would take at even higher prices, and something of a "scramble" for hogs on the part of buyers was touched off.

An increase in the spring crop is expected, especially in view of favorable prices of hogs and corn, but not much easing of prices can be expected on this account before heavier marketings occur sometime next fall. Some decline in prices is expected, however, from an anticipated increase in cattle marketings this spring. Meanwhile, meat trade interests report a stiffening consumer resistance to higher pork prices, and with the drastically narrowed spread between live hog prices and retail and wholesale pork prices, it may be that pressure from the consumer indirectly may have forced lower hog prices before this is printed.

Butter prices have also felt upward pressure. Although production is running currently about 40 per cent above last season, it still is below "normal." By the middle of March, prices had declined below 70 cents, but the anticipated consumer resistance to current prices has failed to materialize in any substantial way. However, as the season progresses it is expected that production levels will soon

force a sharp readjustment in butter prices.

The surprising strength in prices of some commodities may thus continue for some time, with readjustments in a few weeks to several months but probably longer in the case of food grains. When declines do come, the present levels will make the drops all the more severe, especially to those unfortunate enough to be misled into believing that there is any degree of permanence in the advanced levels. Also, of course, the higher prices go the easier it is to forget that basic factors will soon force relatively lower farm commodity prices.

Federal Grants and State Budgets

Budget Proposes 1.3 Billion Dollar Federal Grants to States

While Congress is engaged in the difficult task of reducing and reshaping the Federal budget to peacetime proportions, the legislatures of the several states are concerned with the equally arduous and unpleasant task of financing an expansion in state and local budgets to take full account of postwar price levels, the resumption of highway and public building construction, and programs of veterans' assistance. These contrasting policies arise from divergent effects of the war on Federal, as distinguished from state and local, government expenditures.

In the war period some state and local activities were suspended, others were drastically curtailed, and even the so-called essential expenditures progressively understated rising costs due to higher material prices and salary scales. Just as readjustment from war to peace entails sharply reduced Federal expenditures for national defense, it will also require sharply increased state and local expenditures if only to perform prewar services on a higher price level. Many cost-of-living salary adjustments can no longer be postponed, and early replacements of plants and facilities at postwar costs are essential. These are requirements that cannot be temporized indefinitely without serious consequence to the functioning of state and local governments.

The Federal budget may provide a partial indication of the magnitude of these influences on state and local costs in its projected grants to the states for the financing of jointly supported functions. Table 1 indicates the total of Federal aid as increasing nearly 60 per cent from fiscal 1946 to fiscal 1947 and projects a further increase of nearly one-fourth from fiscal 1947 to fiscal 1948.

For over two decades several activities of the states have been stimulated by financial aid from the Federal Government. The earliest programs were for agricultural research and education, for vocational education and rehabilitation, for public health, and for highway construction. In the 1930's the social security program used the grant technique for old age assistance, aid to the blind and to dependent children, and unemployment insurance administration.

During the war years all of these programs were maintained at prewar potentials, although in operation there were some changes in emphasis. Highway grants were sharply curtailed after 1941 and limited to projects of direct war significance. On the other hand, some of the states increased their participation in the social security program in the early 1940's, thus making for increasing grants for this purpose. In addition, the Federal Government during these years used the existing operating organizations for grant programs in connection with vocational education, public health, and highways as war measures in the education of civilian workers, the care of the health of military personnel and dependents, and the construction of strategic highways. While these programs were activated by the

states, they were not on a matching basis and were not strictly comparable with other grants in aid. In the war years the total of expenditures for the regular programs was

approximately 620 million dollars annually.

Some systematic revision and expansion of various grant programs has been undertaken by Congress since the war. In 1946 the vocational education program, public health program, and the social security program were all revised and somewhat expanded. In December 1944, Congress had voted to provide a three-year one and a half billion dollar grant program for the construction of postwar highways; the first year was designated as fiscal 1946. In 1946, Congress authorized an appropriation of 520 million dollars over a period of seven years for airport construction. This year also witnessed the adoption of an aid program for hospital construction projected over a five-year period and totaling 378 million dollars. In a majority of the cases, these revisions carried authorizations for appropriations indicative of the magnitudes of the aids that Congress expected to appropriate in the postwar years. In the case of social security aids, the grant formula is due for reconsideration this year.

Taking the grants as a whole, it is apparent that Congress has made rather substantial long-run commitments to the states indicative of its future policy toward these jointly sponsored programs but that these commitments as evi-

TABLE 1 FEDERAL AID TO THE STATES (In millions of dollars)

Function	1946 Expenditure	Estimated Expenditure	1948 Budget Estimates
Education	66.3	74.8	85.7
Health ²	36.3	49.3	71.4
Welfare ³	490.5	681.9	701.8
Highway and airports	41.7	221.8	423.3
Unemployment compensation administration	54.5	55.8	57.6
Other	7.2	9.3	10.3
Total	696.5	1,092.9	1,350.1

¹Colleges of agriculture and mechanical arts; agricultural extension; agricultural experiment stations; agricultural research; vocational education and rehabilitation; education of blind.

²Public health service including venereal disease, tuberculosis, and mental health program; maternal and child health; crippled children; disabled soldier and sailor homes.

²Old age assistance; aid to dependent children; blind relief; child welfare; school lunch.

⁴Forest funds and wild life restoration.

SOURCE: The Budget of the United States, 1948.

TABLE 2
FEDERAL AID TO SEVENTH DISTRICT STATES
(In millions of dollars)

Area	1946 Actual ²	1947 Estimated	1948 Estimated
Total—District states1	115.9	187.5	224.5
Illinois	42.6	67.9	80.8
Indiana	15.8	26.4	32.6
Iowa	13.3	22.9	28.4
Michigan	30.2	45.3 (56.0)	52.5 (60.5)
Wisconsin	14.0	25.0 (22.2)	30.2 (33.5)

¹Totals include all functions specified in TABLE 1.

²From Combined Statement of Receipts, Disbursements, and Balances (U. S. Treasury Department).

denced by authorization are not fully reflected in the 1948 budget. There are many instances in which estimated expenditures for 1948 are well below annual authorizations or pro rata shares of authorizations extending over a period of several years. This is typical of public works projects. For example, the estimated expenditure for postwar highways is 60 per cent of a 500 million dollar authorization, that for airports 67 per cent of 75 million dollars, and that for hospitals 20 per cent of 75 million dollars. Other programs that fall short of authorizations are vocational education at 50 per cent of 29 million dollars and certain public health services at 70 per cent of 36 million dollars.

MATCHING REQUIREMENTS

In terms of dollars, the bulk of Federal aid requires matching on the part of the state or local governments. The highway program is almost entirely on a straight matching basis; for every dollar of Federal money, there must be a dollar of state or local money. A Federal grant of 100 million dollars thus entails a total expenditure of 200 million dollars. Much the same matching requirement obtains in the airport grants, although in this case the amount of Federal contribution may be less than 50 per cent of the cost of the project for larger airports; it may thus induce a state or local expenditure in excess of the Federal grant. Hospital grants are available to both public and nonprofit institutions so that private funds may be used in part to cover non-Federal costs which in this instance are to be not less than two-thirds of total construction outlays.

Apart from the 100 per cent grant for administration of unemployment insurance, social security aids prior to 1946 had been on a straight matching basis, with a limit on the use of Federal funds for pensions in excess of certain maximums; e.g., the maximum in case of old age assistance was \$40 per month. This maximum was raised in 1946 to \$45, and Federal aid now covers two-thirds of the first \$15 of monthly payment and a half of the excess up to the maximum. The effect of this amendment is to increase the

proportion of Federal aid, especially in the poorer states where monthly pension payments are below the Federal maximum. In the states where monthly pensions may exceed the Federal maximum, full matching may still obtain.

Among the remaining programs, full matching generally prevails except in agricultural extension, education and research, and public health. In agriculture some early grants require no expenditure from state funds. Another group of aids, however, requires full matching, although the effect is dissipated by using these state shares as the only qualification for additional Federal grants. The net effect is a required state expenditure of between one-fourth and onefifth of the Federal grant. In health aid there is generally considerable flexibility in the statutory matching requirements, permitting variations from state to state. In administration, however, something approaching full matching has been attained on a nationwide basis. Taking the Federal aid system as a whole, the programs do not require an equal expenditure by states and localities; however, in actual practice and for the country at large the Federal funds are probably more than matched in state and local expenditures.

The distribution of Federal grants to each of the states in the Seventh Federal Reserve District is available for fiscal 1946 but can only be estimated for fiscal 1947 and 1948 on the basis of prior years' experiences. In Table 2 such estimates have been made by assuming that each state's share of the indicated United States total for each major grant category (Table 1) will be proportional to that state's share in 1946 (1940 for highways). Actually the apportionment of grants among the states is based on a variety of factors pertinent to the functions involved. Total population, or some segment thereof such as urban, rural, farm, or non-farm, is most commonly used. Other factors are area, highway and road mileage, and comparative need. Implicitly the financial ability of the states and local units, particularly as evidenced in their pensions to the aged, to dependent children, and to the blind is of major importance.

The method of estimation used herein does not reflect changes in distribution adopted by Congress in 1946 nor local factors that have a bearing on the capacity or desire of any individual state to take full advantage of Federal aid, but for Seventh District states these considerations are probably not a serious limitation. The budget documents for the states of Michigan and Wisconsin are available at this writing and provide official estimates by state officials of receipt of Federal money in 1947 and 1948. These are also shown in Table 2. For comparative purposes, the estimated Federal aid to be received in 1948 may be compared with state tax receipts, excluding unemployment compensation payroll taxes. The latest fiscal year for which these data are available is 1946, and the percentages are as follows: Illinois 32, Indiana 30, Iowa 32, Michigan 23, and Wisconsin 18.

The comparatively low proportions for Michigan and Wisconsin do not indicate a lower level of Federal aid to those states but primarily reflect the fact that the state tax systems in both of these states include elements (property taxes on railroads and public utilities) that are a part of local tax systems in the other Seventh District states.

Size of Farms Increasing

Trend to Fewer but Larger Farms

Present day tractors and auxiliary machines, together with other technological developments, have made farm workers much more productive. To utilize efficiently their labor and the larger capital investment in power and other equipment, many farmers have increased the size of their farm business by adding more land. The only way this could be accomplished in most regions was through the consolidation of existing farms into fewer but larger units, a trend accelerated during recent years and which promises to continue.

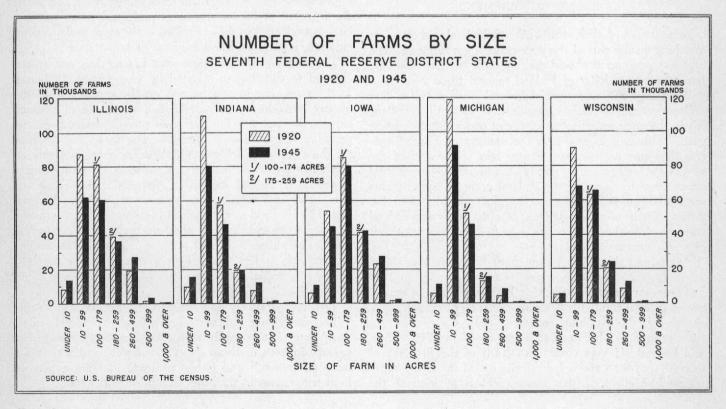
The average size of farms in the United States in 1945 was 195 acres, 21 acres larger than in 1940 and 47 acres larger than in 1920. The trend toward larger farms has varied regionally. In the New England states, farms averaged 18 per cent *smaller* in 1945 than a quarter of a century earlier, while farms in the west south central states averaged nearly one-third *larger*, and in the mountain states were more than doubled in size. In the area consisting of Illinois, Indiana, Iowa, Michigan, and Wisconsin, states included in whole or in part in the Seventh Federal Reserve District, the average size of farms increased from 122 to 136 acres during this twenty-five year period.

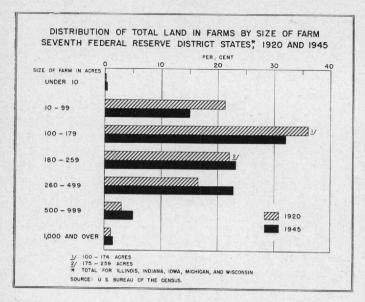
The total number of farms reported for the United States for 1945 was 5,887,000, down about 4 per cent from 1940 and 9 per cent from 1920. Although the number of farms declined, the total land in farms was at a high level.

There were nearly 100,000 fewer farms in the Seventh District states in 1945 than in 1920. These trends toward fewer but larger farms, more mechanized farm operations, and fewer people engaged in farming are viewed by some people with considerable alarm. They foresee a decline in the prevalence of the owner-operated family type farm and the loss to society of the many desirable qualities commonly attributed to it. While these fears probably have some justification, there is a tendency to confuse the enlargement in size of family type farms with the development of large-scale commercialized farms.

Farms under 10 acres in size¹ doubled in number in the United States from 1920 to 1945 and accounted for nearly 10 per cent of all farms in the latter year. Although numerous, these very small units accounted for less than one per cent of the total land in farms. Many of these units are "country residences" of people whose primary source of income is from work other than farming, and probably should not be considered as farms at all. The number of such units increased in each of the states of the Seventh Federal Reserve District by about two-thirds, with the exception of Wisconsin where the increase was about one-tenth during the twenty-five year period.

The census counts as a farm all the land on which some agricultural operations were performed by one person, with or without the assistance of hired labor, except areas of three acres or less which are counted only if the agricultural products produced therefrom were valued at \$250 or more.





FEWER SMALL FARMS

Farms in the United States from 10 to 99 acres in size declined 640,000 or 18 per cent in number from 1920 to 1945 but still accounted for nearly one-half of all farms, although only 11 per cent of all farm land. Many of these are "part-time" or "subsistence" farms, although some, particularly those near large metropolitan centers, are successful truck farms or other specialty enterprises. Two-thirds of the farms in the South, one-half in the East, two-fifths in the West, and a third in the Midwest are included in this size group. In the states of the Seventh Federal Reserve District, farms of this size were most numerous in Michigan, accounting for 27 per cent of all land in farms in that state, and least numerous in Iowa where they included only 6 per cent of the farm land. The number of farms of this size declined sharply in each state in the District.

Farms from 100 to 179 acres in size accounted for one-fifth of total farms in the United States in 1945 and one-third of all farms in the states of the Seventh Federal Reserve District. During the past quarter century there was a decline of 17 per cent in the number of such farms in the nation and of 4 per cent in the Seventh District states. Farms of 180 to 259 acres in size experienced a similar downward trend in numbers but the decline was less marked. In the Seventh District, farms of this size actually increased slightly in number in each state except Illinois and accounted in 1945 for 15 per cent of all farms and 23 per cent of all land in farms. In general, farms of this size in this region are still struggling to accomplish the optimum balance between land, labor, and capital equipment.

LARGE FARMS MORE NUMEROUS

There were about 483,000 farms of 260 to 499 acres in size in the United States in 1945, 7,000 more than in 1920. However, there was a net increase of nearly 24,000 in the number of farms and of 8 million acres in the area in farms of this size in the Seventh District states during this period. Nearly one-fourth of all land in farms in the Seventh Dis-

trict states in 1945 was included in farms of this size, compared to one-sixth in 1920. In some parts of the District, farms up to 400 or 500 acres in size would, with present-day farm equipment, be considered "family type farms"—farms on which the operator and members of his family reside and perform most of the labor. Of course, farms of this size which specialize in the production of crops and livestock requiring large amounts of labor, must rely largely on hired help.

Farms over 500 acres in size have become much more numerous. Much of the increase in both the number and the per cent of total farm land in these large farms was in the Great Plains and western states where large acreages are commonly needed to provide even a modest income for a farm family, but there also has been a decided increase in other areas. The number of 500 to 1,000 acre farms in the Seventh District states increased nearly 75 per cent from 1920 to 1945, with a total number in the latter year of 10,431. Farms of over 1,000 acres in the 5 states of the Seventh District totaled 1,195 in 1945, an increase of 415 in number and of one-half million acres in area from 1920. These farms contained nearly 2 million acres of land for an average size of over 6,000 acres per farm.

tinues to make farm labor more productive, the optimum size of farms probably will continue to increase, and those farm families who are unable to adjust their operations so as to utilize efficiently the advanced technology will operate at an increasing disadvantage. The pressure on such people to seek employment outside of agriculture would increase. In limited areas and for some specialized types of agricultural production, the family size farm, with ownership, management, and operation lodged in the resident family, may give way further to the large-scale commercial type of farm. Insofar as this type of farm organization expands, the functions of ownership, management, and operation would

tend to become lodged in three separate groups with the

latter functions becoming the primary responsibility of the

resident farm families and itinerant hired workers, manage-

ment being performed by specialized technicians, and own-

ership resting with those who have sizable investment funds.

If the application of mechanical power to farming con-

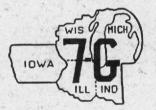
NUMBER OF FARMS BY SIZE, UNITED STATES NUMBER OF FARMS NUMBER OF FARMS IN MILLIONS 3.5 3.0 2.5 1945 100 - 174 ACRES 2.0 175 - 259 ACRES 1.5 1.0 1.0 0.5 10-99 100-179 180-259 260-499 SIZE OF FARM IN ACRES 500-999 SOURCE : U. S. BUREAU OF THE CENSUS

OF ST.LOUIS

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RECOGNISE SPECIES OF VICE FROM NATIONAL AND MANAGER, RESEARCH DEPT.

SEVENTH FEDERAL



RESERVE DISTRICT