

FEDERAL RESERVE BANK OF ST. LOUIS



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THE ELECTRICAL MACHINERY INDUSTRY

THE Twentieth Century has sometimes been called the Age of Electricity. The first four decades witnessed growing utilization of electric power, but whatever claim those forty years had to the title has been dwarfed by the record of the war years. In turn if even part of the glowing predictions concerning development of electrical devices and uses in the postwar period prove true, the last half of this century should more than live up to its name.

The electrical machinery industry has been developed largely since the turn of the century. It consists of four major divisions, which include thirteen distinct manufacturing activities: Equipment for industrial use (wiring devices and supplies, carbon products, electrical measuring instruments and generating, distribution and industrial apparatus); communications equipment with its related branches of insulated wire and cable, and radios, radio tubes and phonographs; consumer products such as appliances, automotive electrical equipment, and electric lamps; and a miscellaneous group including batteries, X-rays, therapeutic apparatus, and electronic tubes.

In 1939, the last year for which census data is available, the industry had about 2,000 establishments employing 256,000 factory workers, who turned out products valued at over \$1.7 billion. Raw material costs were some \$700 million, so that value added by manufacture was about \$1 billion.

The most important division of the industry was industrial equipment, which employed 37 per cent of the wage earners and had the same relative share of value added by manufacture. Almost as important was the communications segment with 35 per cent of the wage earners. The consumer goods segment had 19 per cent of the workers while the miscellaneous group had the other 9 per cent.

Geographically about 90 per cent of the industry was concentrated in the northeastern part of the nation, with seven states having about four-fifths of the wage earners and value of production in 1939. In that year the Census listed 65 establishments in the Eighth Federal Reserve District. The St. Louis industrial area with 43 of these establishments dominated the region. Other production centers in the district were Evansville, Indiana, and Owensboro, Kentucky. Although wartime facilities expansion has added sizable plants at Tell City, Indiana, and Bowling Green, Kentucky, St. Louis has become even more dominant in the district since 1939.

Economic Characteristics—The average prewar electrical machinery establishment was fairly large, relative to other manufacturing establishments, in terms of invested capital, employment, and output. Because of heavy capital requirements for plant, equipment, research, and product development, the industry naturally has tended toward large scale operation. Within the industry itself the large concerns dominate, and concentration is much more marked than in most other lines of manufacture.

Engineering is of pronounced importance to the electrical machinery industry, both because it is relatively young and because it produces highly technical equipment. Product diversification has been marked as more and more uses for electric power have been developed

These basic characteristics have not been changed appreciably by wartime developments. If anything, engineering and product development have become more important, capital requirements heavier, and size of plant larger. At the same time the large plants apparently have grown relatively more than the smaller ones, so that concentration of control within the industry has become more pronounced.

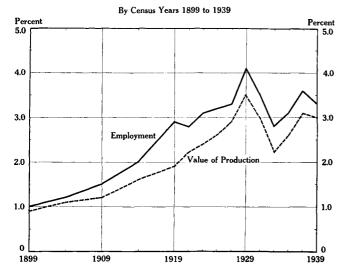
The electrical machinery industry has been one of the fastest growing industries in the United States. In 1899 total output was valued at \$95 million. By 1914 it was almost four times as large. Under the impetus of World War I demand, dollar value of output more than tripled between 1914 and 1919. After receding somewhat in the down-swing of 1920-21, the strong growth trend was resumed in the boom decade of the Twenties, and in 1929 total value of output in the industry was \$2.4 billion, 25 times more than in 1899. In contrast, total manufacturing output in the United States in 1929 (in dollars) was six times as large as thirty years earlier.

Since the production of electrical equipment is primarily a capital goods industry, it is subject to severe cyclical swings. Prior to 1930 demand for electrical goods was so strong and the industry was entering so many new markets that the effect of downward business cycle movements was obscured by the sharply rising growth trend. By 1930, however, the industry had become sufficiently mature so that the disturbed economic conditions of the Thirties produced sharp ups and downs. Total output in the Thirties never approached the peak level of 1929. World War II, however, like the previous war, brought an unprecedented demand for electrical goods, and each successive war year has established

a new record output.

Chart I illustrates both the rapid growth trend of the industry and the typical sensitivity to cyclical forces. The chart gives the relative value of production and employment in the electrical machinery industry to total manufacturing. The strong upward movement of both output value and employment ratios indicates that the industry grew more rapidly than all manufacturing during the first 40 years of the century. At the same time the pronounced up-and down-swings in the Thirties demonstrate that production of electrical machinery and equipment shows greater cyclical fluctuations than all manufacturing.

CHART I RATIOS OF ELECTRICAL MACHINERY MANUFACTURING VALUE OF PRODUCTION AND EMPLOYMENT TO ALL MANUFACTURING



SOURCE: Bureau of the Census, Census of Manufacturers, 1939.

As the industry matured and benefited from large-scale operation and rapidly changing and improving technology, labor productivity rose sharply. In the first fifteen years of the century employment rose almost as rapidly as output, but in the succeeding 25 years output expanded much faster than employment.

In the Eighth District, growth trend, cyclical pattern, and seasonal movement have been very similar to the national picture. District industry, which as noted is mostly in St. Louis, is largely concentrated in the industrial and communications equipment fields, although there is some manufacture of appliances. In St. Louis, during the 1930's electrical equipment manufacture gained in relative importance within the local industrial structure, and apparently expansion in this area was somewhat greater than national growth. In 1933 the industry

ranked fifth in value of output, in 1937 fourth, and in 1939 third. In the latter year it was second in number of wage earners employed in the St. Louis area.

Wartime Developments — The present war, even more than World War I, has called for a tremendous expansion in production of electrical goods of all kinds. To obtain this production it was necessary to convert existing plant and to build considerable new plant. So far in the war period some \$800 million has been spent on new facilities, about two-thirds going for equipment and one-third for structure. In terms of dollars this means an annual average expenditure for new plant during the war years about four times as large as in 1939. New facility awards in the Eighth District have totaled \$27 million, virtually all of this at St. Louis.

Actual output of electrical machinery has risen abruptly since 1940. In 1944 production was about 250 per cent larger than in 1940, in contrast to a rise of about 90 per cent for all industry. New orders increased faster than production so that the backlog of unfilled orders rose sharply.

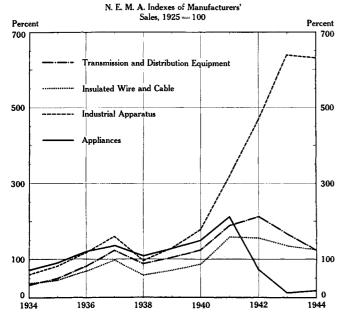
In the main the production record of the industry shows three different patterns. First, the major portion of the industry, industrial and communications equipment, has for the most part continued to turn out products closely allied to peacetime items but used for war purposes. This segment of the industry had little physical conversion. Second, some of the relatively minor components of the industry in prewar years, such as electronics and radar, expanded output phenomenally and out of all proportion to prewar production. A stream of new and improved products flowed from these plants to military uses. Third, most of the consumer goods producers had to retool and convert to war production. For the most part they produced war goods not very similar to their peacetime products - ammunition, aircraft parts, containers, etc.

Between 6 and 7 per cent of total munitions expenditures in this country has gone for communications and electronic equipment alone, with about \$10 billion being spent for such items through 1944.

The Department of Commerce estimates that shipments of all electrical machinery (first quarter performance expressed as annual rates) increased from \$3 billion in 1941 to more than \$8 billion in 1944 and 1945. Most of this has gone into direct war uses, and non-war production of all types has been 30 to 50 per cent less than 1941. Production of items for ultimate consumers, of course, has been virtually nonexistent since early 1942.

Chart II shows the course of production of certain major divisions of the industry during the late 1930's and the wartime years. Most striking are the records of industrial equipment, which increased output tremendously, and appliances, which fell off substantially. Data for electronic and communications equipment is not shown, since it is generally withheld for security reasons. Could it be charted the upward movement since 1940 would be even more pronounced than that for industrial equipment.

CHART II MAJOR DIVISIONS ELECTRICAL MANUFACTURING INDUSTRY



SOURCE: Electrical World.

Among the many developments which characterized wartime production, perhaps two are most significant. One is the rapid advance in technology and the numerous new products that have been developed; the other is the drive for standardization of both old and new products to increase efficiency and conserve materials and manpower. For example, most large turbines were custom built prior to the war; today many types are standardized and as a result are produced by mass production technique.

The Eighth District shared fully in the wartime development of the industry. Prime war supply contracts let in the district for electric products of all kinds totaled somewhat more than \$610 million through December, 1944. Of this sum St. Louis manufacturers received about \$570 million and Evansville producers more than \$25 million. In addition the area received a substantial volume of subcontracts from outside the district for electrical

tools, radio and radar parts, and electrical machine parts. Most of these subcontracts went to St. Louis, Owensboro, and Louisville plants, but a fair amount was placed in establishments in smaller district cities.

Employment in the electrical machinery industry in the United States almost tripled from 1939 to 1944. In St. Louis the percentage increase was somewhat larger than the national gain. As a result St. Louis electrical equipment manufacturers employed 8.7 per cent of all local factory workers in September, 1943, in contrast to 6 per cent in April, 1940.

Wartime employment has been characterized by a work week increasing from the prewar forty hours to as much as fifty hours. Average weekly earnings (take-home pay) rose from \$30.72 in 1940 to \$47.77 in 1944, or 56 per cent. Average hourly earnings rose 36 per cent during the same period. Since prewar earnings were already high relative to other manufacturing, under stabilization adjustments they have failed to register the same wartime gains as earnings in other durable goods lines, and the spread between earnings in the industry and all manufacturing has narrowed appreciably.

Labor productivity has increased greatly during the war years, output per man-hour rising about onethird from 1939 to 1945 as a result of better production methods, specialized machinery, and the better application of manpower.

Postwar Outlook—The basic factors underlying the level of demand for the products of the electrical machinery industry are (1) the level of national income, (2) the cost of production of electrical machinery and its efficiency of operation as contrasted to competing devices, (3) the availability of electric power, and (4) the cost of electric power. These factors operate in greater or less degree upon demand for the products of the different segments of the industry.

On the basis of these factors postwar demand for electrical machinery and equipment should be much larger than prewar demand. The national income, even if it contracts from wartime peak levels, is expected to be substantially higher than in prewar years. Reinforcing the influence of this factor on demand is the heavy backlog of wartime savings, both individual and corporate. Surveys indicate that a substantial volume of industrial postwar expenditures (perhaps 40 to 50 per cent) is earmarked for electrical machinery and equipment. Similar consumer surveys show high demand, much of it deferred during wartime, for appliances of all kinds.

With the sharp increase in labor productivity and the development of new products, cost of production and efficiency of operation of electrical products should stimulate sales. Some of the wartime gains in productivity on certain items have been phenomenal, and even with higher wage rates unit costs on these items should be considerably lower in postwar years.

Availability and cost of power should also operate to increase demand. The capacity to produce electric power has expanded substantially during the past four years, and programs announced by public utilities and the Rural Electrification Administration look toward further postwar expansion of production as well as distribution facilities. The utilities alone expect to spend from \$500 million to \$800 million annually for new construction in the postwar decade. River valley developments, if properly carried out, should also produce considerable sources of power that will expand the market for electrical equipment.

It should be noted that these programs influence demand on two sides and thus tend to produce a reinforcing spiral effect. First, the programs themselves demand electrical equipment, and since they produce more power and make it more widely available, they increase the market for goods to utilize the power.

Despite this generally favorable market outlook some components of the industry, notably those most swollen by war demand, may have a postwar capacity that is greater than the postwar market can utilize. In such lines there may result a competitive struggle for markets reminiscent of the earlier history of the automobile industry.

In this respect district industry apparently is in a fortunate position. Expansion here has occurred mostly in lines in which capacity is not likely to greatly exceed output at a reasonably high level of demand. The war has strengthened the relative position of many district manufacturers and they should be in good shape to face the postwar years.

In view of the above market picture postwar employment in the industry, while probably not to be maintained at wartime peaks, is expected to be considerably higher than in prewar years. While adjustments may occur in certain segments and certain companies, St. Louis electrical manufacturers as a whole expect to employ about 19,000 workers in the postwar period compared with 10,000 in 1940. The industry here has a minimum of reconversion difficulties and has a substantial backlog of civilian orders on hand. Favorable factors making for rela-

tively high employment levels are the large demand for electrical products expected in the postwar period and the return to a forty-hour week. Offsetting developments which will affect labor income adversely are the probable loss of overtime work and of shift bonuses.

An appraisal of the probable postwar position of the electrical machinery industry would be incomplete without analysis of the industry's financial strength. During the war period the industry, in common with all others which expanded tremendously, has been under heavy financial strain. Inventories have lengthened, accounts receivable have increased, and miscellaneous current liabilities, mostly tax liabilities, have risen very sharply. To meet this financial strain the industry utilized funds from several sources. First, it received heavy advance payments for its products from the Government, utilizing this source much more than did the average manufacturing line. At the same time some two-thirds of total expenditures for new plant and equipment was paid for with Government funds. Secondly, it utilized internal reserves, and thirdly, it borrowed heavily from the banking system either in the form of straight industrial loans or in V loans guaranteed by the Government. As a borrower the industry was much more active than most other lines during the war period.

Profits have increased somewhat during the war years, but the increase in profits has failed to match the rise in sales because of very heavy taxes, contract renegotiations, etc. Altogether 1944 profits for the electrical machinery industry (National City Bank figures) were 9 per cent larger than in 1940. On the basis of return on net worth the industry has averaged about 12 per cent in each of the war years. The industry generally has followed a conservative dividend policy, and has set aside large sums for postwar reserves of various kinds.

A recent survey conducted by the St. Louis Committee for Economic Development indicated that most electrical machinery manufacturers feel that they are in strong enough financial position to make the transition from war to peacetime production without any appreciable outside financial help. This belief, however, was based upon expectation of prompt settlement of terminated war contracts. Without such prompt settlement, with inventories and receivables considerably expanded and with heavy current liabilities, it is not likely that even the relatively large cash balances and substantial holdings of Government securities would suffice to meet payments for any appreciable length of time.

SURVEY OF CURRENT CONDITIONS

ITH victory in Europe, our military power and productive capacity can now be turned to the task of defeating Japan. Since the volume of munitions production necessary to attain this end will be substantially less than was needed to wage war in both Europe and the Pacific, the transition period between V-E and V-J days will see partial reconversion to peacetime activity. Industry will be most affected by this reconversion, but there will be repercussions upon agriculture, trade, and finance.

INDUSTRY

Any satisfactory appraisal of industrial prospects must await more definite information about the needs of the Pacific war, which will determine the volume of materials, plant, and manpower that can be allowed industry to reconvert to peacetime production. It is too early also to form a judgment as to the effect of partial reconversion upon a particular region of the country. In this district, however, indications are that manufacturers will have relatively little difficulty in reconverting their plant and equipment once materials are released for peacetime products.

A recent study released by the War Production Board indicates that many manufacturing activities important to this district are not in the category which will encounter serious difficulties in re-establishing peacetime production. This report covered 72 industries, of which about 20 are among the major ones in this district. One-third of these district industries can resume immediately a reasonable level of peacetime output when authority is issued. Most of the others will need less than three months for partial reconversion.

The study also indicates that expenditures on new equipment, tools, and new construction necessary to resume a reasonable level of peacetime production should be small, except in automotive, refrigerator, stove, and electric appliance industries. This means that while a number of companies will probably find it desirable to construct new buildings and to install new equipment, resumption of peacetime output will not have to wait upon this. To reach capacity peacetime production will take more time, more construction, and more new equipment, and it is doubtful that sufficient materials and manpower will be available to permit this in the period required to end the Japanese war.

It is expected that cutbacks in war contracts will be fairly rapid now that the war in Europe is over.

Cutbacks affect industry in two ways. On the one hand, some cancellations either curtail or stop current production in particular plants, while on the other hand, some cutbacks merely reduce the backlog of war orders without materially affecting current production schedules.

The first type of cutback is more spectacular and consequently receives more publicity. In this district several large war plants have either closed down completely or are scheduled for closing in the relatively near future. A number of other plants have reduced employment and shortened hours. The major district industrial centers of St. Louis, Louisville, and Evansville have been most affected by these developments. Reductions in the backlog of war orders have been fairly general, although the total still remains high.

Munitions Output — Until very recently, almost until V-E Day itself, war production in this district was expanding. Some large new facilities had just begun to reach high production levels. Except for a few critical lines, this upward movement should be reversed in the next few months. Indicative of the rise in war output in the region during the first part of this year, employment in the district's larger war plants in March and April was above the level prevailing at the close of 1944 but still considerably below the wartime peak reached in the fall of 1943. With a number of layoffs scheduled for coming months it is expected that employment at these same plants by June and July of this year will be well below the March level.

Other Manufacturing — Total industrial output in the district so far this year has been greater than in the comparable period of 1944, largely reflecting the course of munitions production. During March, April, and early May, the non-munitions lines were fairly stable. Among the more important industries production of steel, shoes, chemicals, and alcohol is holding up well. Electrical machinery and meat packing activity is declining while output of lumber holds steady at well below peak levels.

Indicative of the expansion of munitions output in the district during the first part of this year, consumption of industrial electric power in major cities in the first four months of 1945 was 12 per cent above the comparable period in 1944, and 5 per cent above that for the last four months of 1944. In April industrial power consumed was 22 per cent greater than in April, 1944 and on a daily average basis was 6 per cent more than in March, 1945.

Steel mill furnaces for the past several months have operated at about 79 per cent of capacity. Despite some cancellations, orders on most items are backlogged far into the future, and mills are expected to continue for some time to operate at close to present levels. Materials for steel making, scrap steel, pig iron, limestone, and fuels, are flowing into mill and foundry inventories in sufficient amount to insure maintenance of the current operating rate.

In Kentucky, 51 distilleries were in operation on April 30, only one less than a month and a year earlier. All distilleries continue to produce industrial alcohol for the war effort. WPB has just announced another holiday month for whiskey production in July, in view of the quantity of alcohol being distilled and the reduced requirements of the war program. The July holiday will be the third since October, 1942 when distilleries ceased whiskey production and began to turn out high wines and industrial alcohol. The whiskey made in the holiday period will not be available for immediate consumption, and the neutral spirits distilled can be used only for blending.

Oil and Mining—During April activity in district oil fields picked up somewhat from the low point of March, but failed to reach the level of a year earlier. Daily average crude oil production at district wells in April was about 2 per cent greater than in March, but about 4 per cent below April, 1944. April output was below most months in 1944.

New drilling activity in this district also continues to lag in comparison with 1944. Through May 5 total completions in all district fields numbered 730 as against 902 in the comparable period in 1944. Drilling activity in Illinois this year is about equal to 1944, but in Kentucky there have been only half, and in Indiana and Arkansas only two-thirds as many completions, as in a like period last year.

Production of coal at district mines in April was less than in March, 1945 and April, 1944. This was partly due to the fewer number of working days in April. Bauxite mining activity in Arkansas continues at a level well below the peak reached earlier in the war years, and from present indications there is no probability that the current rate of activity will expand appreciably in the immediate future. Other non-ferrous mining in the district is relatively stable.

Construction — Dollar value of building permits in the major cities of the district in April was up 7 per cent from March, and at about the same level as a year ago. Construction contract awards in the district in April (F. W. Dodge figures which cover

all types of construction) totaled \$19 million in April as compared with \$8 million a year earlier.

Maintenance and repair of residential buildings may be expected to expand in the next few months. The volume of new home construction will depend largely upon the release of necessary building materials. In view of the findings of the WPB survey of industrial reconversion needs, there may not be a great volume of industrial construction during the transition period. Probably most construction expenditures made by industry in the next few months will be for necessary maintenance and repairs. Surveys conducted by C. E. D. organizations and others indicate that private industry anticipates a considerable volume of construction when materials become readily available, and a considerable portion of this prospective construction is already in the blueprint stage.

AGRICULTURE

General Conditions — Cold, wet weather has prevailed over most of the district during the last month. It has been too wet, except for a very few days in localized areas, for extensive soil preparation for field crops such as cotton and corn. The result is that spring plantings are materially behind schedule and alternate crops may be used on land which under more favorable conditions would have been planted to corn and cotton. Considerable flooding of lowlands has continued throughout much of the last month, and many acres of productive bottom land may be idle in 1945.

Weather conditions have tended to retard progress of some fall seeded grains, but their condition has generally remained good, although there are reports from some areas of yellowing and fly damage. Progress of tobacco beds is only fair and many are weedy.

The condition of livestock over the district is good. Pastures are the best they have been at this season for many years. Forage crops are unusually abundant. Some early cuttings of hay, however, in the southeastern section of the district were damaged or lost completely because weather was not suitable for curing.

Outlook — The defeat of Germany should tend to strengthen rather than weaken non-civilian and foreign demand for agricultural products. There will be little immediate change in the food requirements of our armed services and demand of newly liberated countries will be added to foreign demand already in existence.

Even with some cutback in war production, industrial activity should continue at a high level, which will provide sufficient consumer income to maintain demand for farm products. Total civilian food supplies in 1945 will be below last year and about on a level with the 1935-39 average.

Fats and oils are in short supply and probably will continue so throughout the year. Total meat output in 1945 promises to be approximately 9 per cent less than 1944, but will be 39 per cent above the prewar average. The civilian meat supply this year is smaller than last year but about equal to the 1935-39 average. Production of dairy products continues upward but the civilian supply will be smaller this year than last, although about the same as the 1943 supply.

Present feed grain supplies are 19 per cent greater than a year ago and about equal to those of the 1935-39 period when stocks were relatively high. Very favorable pasture conditions tend to further

AGRICULTURE

(In thousands	Ma	irch	Cumul	lative for 3 1	nonths
of dollars)	1945	1944	1945	1944	1943
Arkansas\$	16,513	\$ 14,269	\$ 62.880.	\$ 50,733	\$ 52,23
Illinois	89,233	103,194	264,819	300,143	253,71
Indiana	48,339	53,623	140,589	159,007	136,37
Kentucky	22,239	18,265	178,734	131,085	100,23
Mississippi	20,185	12,027	68,342	44,607	40,40
Missouri	43,810	48,712	143,783	154,035	125,77
Tennessee	16,105	19,866	84,373	81,292	65,31
Totals	256,424	269,956	943,520	920,902	774,05

RECEIPTS AND	SHIPMEN	TS AT	NATIO	NAL ST	COCK Y	YARDS
		Receipts		Shipments		
	Apr., 1945	Mar., 1945	Apr., 1944	Apr., 1945	Mar., 1945	Apr., 1944
Cattle and Calves Hogs Horses and Mules Sheep Totals		113,268 166,674 3,523 22,305 310,770	2,906 27,067	69,025 48,767 3,828 11,395 133,015	57,381 60,160 3,523 2,424 123,488	40,739 63,331 2,956 13,144 120,170

PRICES

WHOLESA	LE PR	CICES IN	THE U	NITED STA	TES
Bureau of Labor Statistics (1926=100)	Apr., 1945	Mar., 1945	Apr., 1944		comp. with
Farm Products	105.7 129.0 105.8 99.3	105.3 127.2 104.6 99.2	103.9 123.2 104.9 98.4	+0.4% $+1.4$ $+1.1$ $+0.1$	+ 1.7% + 4.7 + 0.9 + 0.9
	pr. 15, 1945 127.1 125.2	1945	Sept. 15, 1942 117.8 116.6 119.3	Apr. 15,'45 Mar. 15,'45 + 0.2% + 0.2 	comp. with Sept. 15,'42 + 7.9% + 7.4
Bureau of Labor Statistics A (1935-39=100) U. S. (51 cities) St. Louis Little Rock Louisville Memphis	pr. 15, 1945 136.6 139.0 137.6 130.6 145.2	1945	FOOD Sept. 15, 1942 126.6 126.7 129.2 124.2 129.7	Apr. 15,'45 Mar. 15,'45 + 0.5% + 0.7 + 1.1 + 0.3 + 0.6	6 comp. with Sept. 15,'42 + 7.9% + 9.7 + 6.5 + 5.2 + 12.0

Page 8

enhance the feed supply situation. At the same time, total livestock numbers are considerably higher than in the prewar period, so that supplies per animal unit are less at the present time than before the war.

Consumption of fibers will probably increase during 1945, primarily because of demand in the newly liberated nations, but this increased consumption probably will not be sufficient to affect materially the record carry-over stocks of fiber crops throughout the world.

Unfavorable weather over the Eighth District, which has continued to date, is the strongest factor in the immediate outlook for district farming. Continued wet and cold weather will materially reduce prospective plantings of major crops in the district. While alternate crops may be used to absorb part of the shock, material reductions in plantings of cotton, corn, tobacco, and rice, along with continued high operating costs could spell decline of profit in 1945 for crop farmers. The general farmer and the livestock farmer may offset partially such a development through heavier than normal marketings of livestock, particularly cattle. This would have the effect of marketing surplus inventories at good prices and forcing an adjustment of inventories to numbers that might more nearly fit the postwar pattern of production.

The New Meat Subsidy Program — Despite the near record numbers of livestock on farms, civilian meat supplies are tighter than at any time since the war began. Recently a number of steps have been taken that are designed to increase marketings of livestock of desired weights and quality, and to reduce the diversion of supplies into black market channels. The principal measures which were announced May 18 by the Director of War Mobilization are summarized below:

- 1. Producers are promised that there will be no downward revision in "overriding ceiling prices" or in the maximum of the stabilization ranges for beef cattle, except bulls, without at least six months advance notice.
- 2. A subsidy of fifty cents per hundredweight will be paid to producers of AA and A grade cattle marketed for slaughter (sold for \$14.25 or more per hundredweight, Chicago basis) weighing eight hundred pounds or more.
- 3. The Defense Supplies Corporation will increase subsidies to packers. On pork the subsidy will go up forty cents per live hundredweight, retroactive to April 1. On all grades of cattle it will be increased twenty-five cents per live hundredweight, effective June 4, 1945.

- 4. The WFA set-aside orders for Government purchases of meat will be adjusted so that Government requirements will be drawn from those Federally-inspected plants slaughtering more than their normal proportion of total slaughter.
- 5. In a move to combat black market operations, OPA and WFA will "develop a plan by June 15 to show movement of all livestock through public stockyards and public sales yards so that information as to the destination of all such livestock will be available".

In addition the WFA announced that the floor price of \$13.00 per hundredweight on live hogs would be extended to September 1, 1946 and would apply to all good and choice butcher hogs regardless of weight.

The steps taken should prove of greater benefit to the packing industry than to either producers or consumers. So long as demand is sufficient to maintain current wholesale meat prices, the higher subsidies in processing livestock will mean increased margins to packers. While the livestock ceiling price freeze prohibits downward adjustment, the farmers' primary concern is with floors rather than ceiling prices. The broader application of the floor on hog prices should result in heavier feeding and thus eventually increase supplies of pork and lard.

In cattle the situation of producers is less secure. Since there is no floor in cattle prices, it is possible that prices could drop sharply under pressure of heavy marketings in case of drouth or other unforeseen developments.

While some elements in the situation are quite different, the farmer has not forgotten his experience with hogs during the 1943-44 marketing season. The heavy hog runs of that period as feed supplies dwindled pushed market prices down to the floor for a considerable period of time. Many farmers were left with only small profits on the large hog crop they had produced.

The fifty-cent subsidy on better grades of feeder cattle along with the ceiling price freeze may nevertheless afford some encouragement to the cattle feeder. It may stimulate feeders to complete a longer feeding period and market cattle of heavier weights and better quality. It appears to offer little incentive to liquidate surplus breeding stock. Except for fed heifers and fat barren cows, very little of the female marketings are likely to be graded as high as AA or A and thus be eligible for subsidy payment.

It would appear that the program could have been more beneficial to consumers and producers had it contained some provisions to encourage orderly marketing of surplus breeding stock. Heavier marketings would improve the immediate situation for consumers and help farmers to make a downward adjustment in cattle inventories at profitable prices. This would tend to place producers in a much more favorable position when the demand for meat products shrinks to a peacetime level.

It is difficult to appraise the possible effectiveness of the anti-black market provisions until more details of the program are available. While black markets in meats have apparently flourished in some areas, it is doubtful that the present meat situation would be materially improved if all meat now being

INDUSTRY

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	COA	L PRODU	CTION			
(In thousands				Apr.,'45 cc	mp. with	
of tons)	Apr.,'45	Mar.,'45	Apr.,'44	Mar.,'45	Apr.,'44	
Illinois	5,710	6,765	6,223	16%	- 8%	
Indiana		2,411	2,151	28	⊷ 19 ′°	
Kentucky		5,873	5,466	·- 14	8	
Other dist. states		1,681	1,675	27	26	
Totals	13,726	16,730	15,515	- 18	-12	
	CONSUMPI	ION OF	ELECTRI	CITY		
	No. of Apr.,		Apr.,	April,	1945	
	ustom- 1945			compare	ed with	
in thous.)	ers* K.W.H	. K.W.H.	K.W.H.	Mar., 1945	Apr., 1944	
Evansville			7,557†	- 1%	+ 36%	
Little Rock	35 3,10				+ 23	
Louisville		5 15,949		+ 10	+ 9	
Memphis		6,959		4	+ 4	
Pine Bluff	19 7,41			+ 8	+ 11	
St. Louis	141 103,71	7 101,585	82,837	+ 2	+ 25	
Totals	348 148,63	4 144,934	122,141†	+ 3	+ 22	
*Selected indust				, ,		
LOAD	S INTERCH	IANGED I	OR 25 RA	AILROADS	3	
	A	T ST. LO	UIS			
		First nin	ie days			
Apr.,'45 Mar.,'4	5 Apr.,'44	May,'45	May,'44	4 mos.'45	4 mos.'44	
164,110 173,649	9 162,716	51,355	41.892	640,989	640,172†	
Source: Termina	l Railroad As	sociation of		†Revised.	040,1721	
				, -ce vised.		

DEBITS TO INDIVIDUAL ACCOUNTS

(In thousands of dollars)	April, 1945	March, 1945	April, 1944	Apr.,'45 c Mar.,'45	omp. with Apr.,'44
El Dorado, Ark	\$ 9,250	\$ 10,813	\$ 9,147	-14%	+ 1%
Fort Smith, Ark	20,375	22,870	20,263	11	+ 1
Helena, Ark	3,749	4,323	3,585	13	+ 5
Little Rock, Ark	86,294	91,774	67,591	6	+28
Pine Bluff, Ark	14,815	18,246	14,887	19	- 0 -
Texarkana, ArkTex.	10,950	12,757	8,665	14	+26
Alton, Ill	13,988	15,982	12,768	-12	+10
E.St.LNat.S.Y.,Ill	67,568	73,915	74,406	9	<u> </u>
Quincy, Ill	17,306	18,173	16,740	5	+ 3
Evansville, Ind	93,346	104,519	107,344	11	13
Louisville, Ky	338,104	366,859	313,039	8	+ 8
Owensboro, Ky	16,962	18,955	13,617	11	+25
Paducah, Ky	8,022	9,111	8,195	12	_ 2
Greenville, Miss	8,343	9,758	7,576	—15	+10
Cape Girardeau, Mo	5,245	5,495	4,684	 5	+12
Hannibal, Mo	4,826	5,382	4,291	10	+12
Jefferson City, Mo	30,743	22,580	28,513	+36	+ 8
St. Louis, Mo	1,028,190	1,109,873	952,486	— 7	+ 8
Sedalia, Mo	6,151	7,357	5,782	—16	+ 6
Springfield, Mo	29,495	33,065	27,795	11	+ 6
Jackson, Tenn	8,792	9,368	8,592	— 6	+ 2
Memphis, Tenn	251,472	264,003	220,610	— 5	+14
Totals	2,073,986	2,235,178	1,930,576	<u> </u>	+ 7

RETAIL TRADE

DEP	DEPARTMENT STORES Stocks Net Sales on Hand					
Apr., compared Mar.,'45		4 mos.'45 to same period '44	Apr. 30,'45 comp. with Apr. 30,'44	Jan. 1 Apr. 1945	30,	
Ft. Smith, Ark —25% Little Rock, Ark. —24 Quincy, 111 —29	- 6% + 3 - 8	$^{+14\%}_{+19}$	+ 16% + 9	1.43 1.90	1.38	
Evansville, Ind. —23 Louisville, Ky —14 St. Louis, Mo —26	- 4 + 5 + 5	+ 7 +17 +17	6 + 10	2.25 1.72	1.77 1.48	
Springfield, Mo. —15 Memphis, Tenn. —25 *All other cities. —21	+13 + 3 + 1	+24 +15 +15	+ 1 + 1 + 2	1.91 1.71	1.66	
8th F.R. Dist., -24	+ 4	+16	+ 7	1.81	1.55	

*El Dorado, Fayetteville, Pine Bluff, Ark.; Alton, East St. Louis, Harrisburg, Mt. Vernon. Ill.; Vincennes, Ind.; Danville, Hopkinsville, Mayfield, Paducah, Ky.; Chillicothe, Mo.; Jackson, Tenn.

Trading days: April, 1945—25; March, 1945—27; April, 1944—25. Outstanding orders of reporting stores at the end of April, 1945, were 60 per cent greater than on the corresponding date a year ago.

Percentage of accounts and notes receivable outstanding April 1, 1945, collected during April, by cities:

	Excl. Instal. Accounts		Excl. Instal. Accounts
Fort Smith % Little Rock 30 Louisville 37 Memphis 42	62 % 61 60 60	Ouincy 34% St. Louis 36 Other cities 32 8th F.R. Dist. 36	75% 74 61 68

INDEXES OF DEPARTMENT STORE SALES AND STOCKS 8th Federal Reserve District

	1945	1945	1945	1944
Sales (daily average), Unadjusted1		233	187	183
Sales (daily average), Seasonally adjusted1.		235	236	173
Stocks, Unadjusted ²		100 98	96 101	103 100
Stocks, Seasonally adjusted ²	100	98	101	100
2Monthly average 1923-25=100.				

SPECIALTY STORES

	Net Sales		Stocks on Hand	Stock Turnover
com	pr., 1945 pared with 45 Apr.,'44	4 mos.'45 to same period '44	Apr. 30,'45 comp. with Apr. 30,'44	Jan. 1 to Apr. 30, 1945 1944
Men's Furnishings —4 Boots and Shoes —3		+14% +13	14% 2	1.31 .97 3.11 2.59
Percentage of account collected during April		receivable o	outstanding A	pril 1, 1945,
Men's Furnishings	59%	Boots and	Shoes	54%
Trading days: April	, 1945—25;	March, 1945	5-27; April,	1944—25.

RETAIL FURNITURE STORES

Inventories

Datio

Net Sales

						Rano	
	compar	, 1945 red with Apr.,'44			of Collections Apr.,'45 Apr.,'4		
St. Louis Area1.	+ 1%	+20%	5%	+ 2%	39%	35%	
St. Louis	+ 1	+20	— 5	+ 2	38	34	
Louisville Area2.	÷17	+ 2	+ 4	+19	25	25	
Louisville	-∔18	÷ 7	+ 5	+14	25	24	
Memphis	13	1	+ 2	+12	24	23	
Little Rock	-12	1	_ 3	+ 3	32	29	
Springfield	- 0 -	+10	*	*	49	39	
Pine Bluff	16	25	*	*	31	37	
Fort Smith	+ 3	7	*	*	*	*	
8th Dist. Totals3	- 0 -	+10	— 3	+ 4	34	32	

*Not shown separately due to insufficient coverage, but included in Eighth District totals.

¹Includes St. Louis, Missouri; East St. Louis and Alton, Illinois. ²Includes Louisville, Kentucky; and New Albany, Indiana.

³In addition to above cities, includes stores in Blytheville, Arkansas; Evansville, Indiana; Henderson, Hopkinsville, Owensboro, Kentucky; Columbus, Greenville, Greenwood, Starkville, Mississippi; Cape Girardeau, Hannibal, Missouri; and Dyersburg, Tennessee.

PERCENTAGE DISTRIBUTION OF FURNITURE SALES

	Apr.,'45_	Mar.,'45	Apr.,'44
Cash Sales	22%	23%	20%
Credit Sales		77	80
Total Sales	100	100	100.

sold through black market channels were directed to legitimate markets. There is no question but that available civilian supplies of meat are being unequally distributed to consumers. However, much of this is probably due to diversion to favored classes of purchasers such as the hotel and restaurant trade, and there is evidence that supplies are relatively higher in small towns and rural areas than in the large metropolitan centers. It is difficult to correct diversions of this type without major changes in the entire meat control program.

RETAIL TRADE

Victory in Europe had little immediate effect upon retail sales in this region, which have been running well above the level of a year ago. The promise of larger supplies of civilian goods should result in a sales volume for the remainder of the year well above the comparable 1944 level. Higher sales will be realized especially if durable goods begin to appear on the market in increased volume.

The rise in retail sales over a year ago largely reflects price increases and the purchase of higher priced articles, because lower priced goods are no longer widely available. In view of such shortages of various types of goods it is doubtful that, on a physical volume basis, sales this year have actually risen very much. At the present time certain soft goods lines are almost as difficult to obtain as durable goods. This is especially true of cottons where shortages of labor at textile mills and price considerations have materially curtailed production of civilian cotton goods and products.

At retail trade lines, whose statistics are available to this bank, total volume of sales in April averaged well below March, but was somewhat higher than in April, 1944. The major factor accounting for the decrease from March was that Easter fell on April 1 this year as against April 9 last year. With Easter coming at the beginning of the month virtually all pre-Easter shopping was reflected in the March figures. At department stores April sales volume was 24 per cent below March. Women's apparel store sales were off 38 per cent in the month; men's furnishings sales down 45 per cent; and shoe sales down 32 per cent. The Easter factor does not affect furniture stores particularly, and district furniture store sales in April were unchanged from March.

Indicative of the rising volume of sales in 1945, despite the difference in Easter dates, department store sales in April were 4 per cent higher than a year ago. Women's store sales were up 6 per cent, and furniture store sales up 10 per cent.

MONEY AND BANKING

The transition period between V-E Day and the

end of war in the Pacific is not likely to bring any great changes in banking and credit trends established during the war years. As long as wartime Government expenditures continue to exceed receipts and the deficit is partly financed by borrowing from banks, deposits will continue to expand. As indicated previously in this Review, deposit growth has been greater in rural regions than in urban centers, and in balances of individuals rather than in business accounts. As more goods become available, individual savings may tend to decline, which would lead to some reduction in the rate of deposit growth, particularly in rural areas, but this situation should develop slowly.

During the past month deposit totals at Eighth District banks have shown little change. Private demand deposits, U. S. Government balances, and bankers' balances at mid-May were about the same as a month earlier. Time deposits continued to climb in April and early May at about the same rate as in the past few months. The impact of the Seventh War Loan on bank deposits has not been noticeable as yet. Since the marketable drive securities are dated June 1, shifts of funds to War Loan accounts will not take place in any large volume until then.

With contract cancellation, partial reconversion to peacetime production, and prospective inventory increases at commercial businesses, some bankers are anticipating a rise in commercial and industrial loans. Although business may need some funds to finance reconversion or to tide it over the period of contract settlement in the event of cancellation, whether or not these funds are derived from bank loans will depend upon the decisions of individual businesses. Business as a whole apparently has sufficient funds on hand to finance itself in the transition period, although some concerns may prefer to maintain substantial cash balances with borrowings.

Commercial and industrial loans continued to decline during the past month. In rural banks the inclement weather, which has delayed farm activity, has tended to hold down the seasonal rise in borrowing. Rural bank credit is not expected to be used to any greater extent this year than in the past two or three years, in view of the strong cash position of most farmers.

NEW MEMBER BANK

Since the last issue of this Review, the Citizens Bank of New Haven, New Haven, Missouri, has become a member of the Federal Reserve System.

WHOLESALING

Lines of Commodities	Net	Sales	Stocks
Data furnished by Bureau of Census, U. S. Dept. of Commerce.*	April, 1945 compared with Mar.,'45 Apr.,'44		Apr. 30, 1945 compared with Apr. 30, 1944
Automotive Supplies Boots and Shoes. Drugs and Chemicals Dry Goods Electrical Supplies Furniture. Groceries. Hardware. Machinery, Equipment and Supplies. Plumbing Supplies Tobacco and its Products Miscellaneous Total all lines** **Preliminary. **Includes certain lines not listed aboy	$ \begin{array}{r} -33 \\ -10 \\ -18 \\ -12 \\ -18 \\ -9 \\ -14 \\ -12 \end{array} $	+ 39% + 3 + 8 - 7 + 6 - 27 + 3 - 4 + 13 - 0. - 18 + 3	+37%2812 -1 + 48 -9 -16

CONSTRUCTION

		New (Cons	struct	ion		_	Repa	rs, etc.	
(Cost in	Nui	nber		Co			Nun		Co	st
thousands)	1945	1944		1945	_	1944	1945	1944	1945	1944
Evansville	22	154	\$	14	\$	164	162	145	\$ 61	\$ 31
Little Rock	30	22		53		23	167	184	42	50
Louisville	63	51		149		157	63	47	27	63
Memphis		330		621		383	240	195	104	95
St. Louis	63	104		141		243	208	168	226	241
Apr. Totals	526	661		978	_	970	840	739	460	480
Mar. Totals	455	494		886		626	795	751	455	771
	JE C	ONSTI	RU	CTIC	N	CON	TRACT	S LE	Т	
(In thousands of dollars)		Apr.	, 19	45		Ma	ır., 1945		Apr.	, 1944
Total 8th District		\$ 10	07	4		\$	69,217†		•	7,714

BANKING

CHANGES IN I	RINCIPAL	ASSETS	AND	LIABILITIES
FEDERAI	L RESERVE	BANK	OF ST.	LOUIS
				Change from

		Chan	ge from
(In thousands of dollars)	May 16, 1945	Apr. 18, 1945	May 17, 1944
Industrial advances under Sec. 13h Other advances and rediscounts U. S. securities Total earning assets	19,805 871,942	$ \begin{array}{r} - 11,445 \\ + 18,855 \\ \hline + 7,410 \end{array} $	$\begin{array}{c} -11,180 \\ +261,499 \\ \hline +250,319 \end{array}$
Total reserves	612,374	+ 13,505 + 9,905 + 10,591	$ \begin{array}{r} + 20,330 \\ + 86,394 \\ + 183,922 \\ \hline + 2 \end{array} $

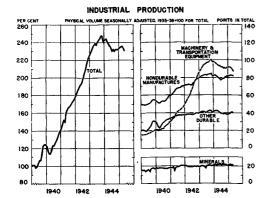
PRINCIPAL RESOURCE AND LIABILITY ITEMS OF REPORTING MEMBER BANKS Change from

		Chan	ge mom
	May 16,	Apr. 18.	May 17,
(In thousands of dollars)	1945	1945	
(In thousands of donars)	1943	1945	1944
T-4-1 1	1.040.706	1 0010	1 000 000
Total loans and investments\$	1,842,796	+ 2,917	+292,899
Commercial, industrial, agricultural loans*	223,614	-11,434	+ 16,203
Loans to brokers and dealers in securities.	8,249	+ 209	+ 4,0.43
Other loans to purchase and carry securities	30,785	+ 189	+ 9,814
Real estate loans	65,982	- 329	+ 2,804
Loans to banks	2,408	+ 1,431	+ 1,458
Other loans	92,133	+ 8,070	+ 16,837
Total loans	423,171	- 1.864	+ 51,159
Treasury bills	45,253	- 1,270	- 12,953
Certificates of indebtedness	296,974	9.055	+ 28,360
Treasury notes	259,499	158	+ 46,996
U. S. Bonds	681,066	+ 12,559	+172,129
Obligations guaranteed by U. S. Govt	13,079	5	7,779
Other securities	123,754	+ 2,710	+ 14,987
Total investments	1,419,625	+ 4,781	+241,740
Balances with domestic banks	107,984	5,643	- 1,243
	1,122,089	+ 10,654	+161,012
Time deposits	302,068	+ 5,910	+ 64,506
U. S. Government deposits	166,263	5,998	+ 9,512
Interbank deposits	581,819	+ 10,014	+111,511
Borrowings	18,650	- 11,100	- 12,335
Portownings	10,030	11,100	12,333

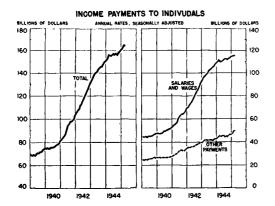
*Includes open market paper.

**Other than interbank and Government deposits, less cash items on hand or in process of collection.

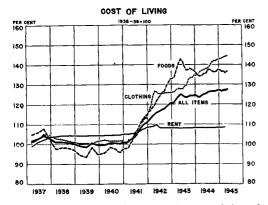
Above figures are for selected member banks in St. Louis, Louisville, Memphis, Little Rock and Evansville.



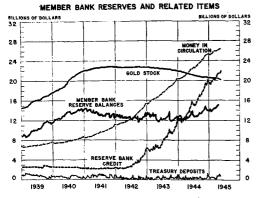
Federal Reserve indexes. Groups are expressed in terms of points in the total index. Monthly figures, latest shown are for April, 1945.



Based on Department of Commerce estimates. Wages and salaries include military pay. Monthly figures raised to annual rates, latest shown are for March, 1945.



Bureau of Labor Statistics' indexes. Last month in each calendar quarter through September, 1940, monthly thereafter. Mid-month figures, latest shown are for April, 1945.



Wednesday figures, latest shown are for May 16, 1945.

Page 12

NATIONAL SUMMARY OF CONDITIONS BY BOARD OF GOVERNORS OF FEDERAL RESERVE SYSTEM

Output and employment at factories declined somewhat in April. Department store sales showed a marked decline and wholesale commodity prices continued to advance slightly.

Industrial production—Industrial production, which had advanced earlier this year, declined in April to the same general level that prevailed during the last half of 1944. The Board's seasonally adjusted index was 231 per cent of the 1935-39 average as compared with 235 in the first quarter.

Activity in the machinery and transportation equipment industries declined about 3 per cent in April, reflecting curtailed munitions production; the largest part of the decrease was accounted for by a further reduction in operations at shipyards. As a result of the decline in shipbuilding during the last 12 months, activity in the transportation equipment industries in April was 10 per cent below a year ago.

Steel production was maintained at the March level as a decline in output at open hearth furnaces was offset by a further rise in steel produced in electric furnaces. Production of nonferrous metals, which had increased somewhat during the first quarter of this year, showed little change in April. Output of stone, clay, and glass products was maintained at the first quarter level, while lumber production continued to decline.

Production of textiles and manufactured food products declined slightly in April and was at the level of a year ago. Cotton consumption showed a decrease of 5 per cent from March but rayon shipments rose further to a record level. Activity at meatpacking establishments, which had shown little change during the first quarter after allowing for seasonal fluctuations, declined 10 per cent in April. Output of rubber products decreased as the shortage of carbon black continued to limit production despite measures to stretch available supplies. Production of most other nondurable goods showed little change.

Bituminous coal production recovered in the latter part of April from a substantial decline earlier in the month due to work interruptions accompanying contract negotiations. Output for the month was 8 per cent below that of March and in the first two weeks of May continued at this lower rate. Anthracite production in April was 14 per cent higher than in the preceding month but declined sharply in May prior to agreement on a new wage contract on May 19. Output of crude petroleum has been maintained at record levels and iron ore production has shown an exceptionally large increase this Spring due to early opening of the navigation season on the Great Lakes.

Distribution — Department store sales declined sharply in April and the Board's seasonally adjusted index was 181 per cent of the 1935-39 average as compared with an average of 211 in the first quarter and with 172 in April, 1944. Sales in the first half of May were only slightly larger than in the corresponding period a year ago. Owing to unseasonably warm weather and expectations of shortages, much Spring shopping, which would usually be done in April and May, occurred this year in February and March. In mid-April many stores were closed immediately following the death of President Roosevelt. Also, in particular cities part of the recent decrease in sales appears to have been associated with actual or anticipated income declines resulting from cutbacks in war production.

Freight carloadings of most manufactured products were maintained at a high level in April and the early part of May and were above the same period a year ago. Shipments of coal and lumber, however, were in smaller volume, reflecting reductions in output of these commodities.

Commodity prices — Wholesale prices of farm products advanced in April and then showed little change in the first 3 weeks of May. Maximum prices for coal, steel products, and various other industrial commodities have been raised somewhat in recent weeks.

Retail price changes for foods and other commodities apparently have continued to be small in April and the early part of May.

Bank credit — During the four weeks ended May 16 total deposit and currency holdings of businesses and individuals increased by nearly 3 billion dollars. Increases of about 300 million in currency and of over 400 million in reserves required to be held against expanding deposits at member banks resulted in an increased demand for reserve funds by member banks. This demand was supplied largely by an increase of about 500 millions of dollars in Reserve Bank holdings of Government securities, mostly bills and certificates, and in part by a temporary decline in Treasury deposits at the Reserve Banks. Excess reserves rose slightly to around a billion dollars.

In the 5 months between war loan drives, December 20 to May 16, reporting banks in 101 cities reduced their holdings of short-term Government securities by around 2.3 billion dollars in order to maintain adequate reserve balances. But during the same period bond holdings of these banks were increased by 1.6 billion dollars.