AMERICAN INSTITUTE *for* ECONOMIC RESEARCH

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RESEARCH REPORTS

COMING EFFECTS OF CURRENT EVENTS

The Electric-Power Industry

In spite of the phenomenal expansion in the generation of electricity that has occurred during the war period, weekly production data indicate that new records are still being established. This expansion has been possible without substantial additions to plant facilities. A year ago, the War Production Board suspended about half of the electric-power industry's projected expansion programs. This step was taken after a survey indicated that the industry's existing capacity would be adequate to generate the power needed for the war effort. At that time it was also estimated that no acute general shortage of electric power for civilian consumption would develop. Experience up to the present time has demonstrated the accuracy of these estimates.

It was only natural to expect that there would be a greater increase in the use of electric power for industrial purposes than for residential domestic use during the war period; the data show that this has been the case. The United States Department of Commerce in presenting its data for electric-power consumption differentiates between the small commercial and industrial users and the large users. Consumption in 1942 by the large users exceeded that by the same group in 1939 by 74 per cent. The same comparison for the small commercial and industrial users indicated an increase of 31 per cent. Probably the bulk of the manufacturing establishments devoted to the production of heavy war materials was included in the former group.

Consumption of electricity for household purposes has also increased substantially during the war period. There was an increase of 28 per cent in the consumption of electricity by residential customers in 1942 from the 1939 total. There was an even greater increase (54 per cent) in sales of electricity in the rural areas. The recent rate of increase in residential and rural consumption of electricity has even exceeded the rate that prevailed during the decade preceding the outbreak of war.

For a period of about fifteen years before the second World War, householders were adding to their domestic equipment appliances that depended on electric power for their operation. This trend became more pronounced after the war in Europe started, and reached a record high during the summer of 1941 when supplies of consumer durable goods were adequate and when the purchasing ability of the public had been augmented by the increased pay rolls incident to the prewar armament effort.

After we entered active participation in the war, the supply of new equipment for domestic purposes was no longer available. Presumably, a portion of the householders electric appliances is becoming unserviceable, but this is not yet discernible in the consumption figures by residential users. Probably the increased incomes available to the public encourage the more extensive use of time-saving devices in the home.

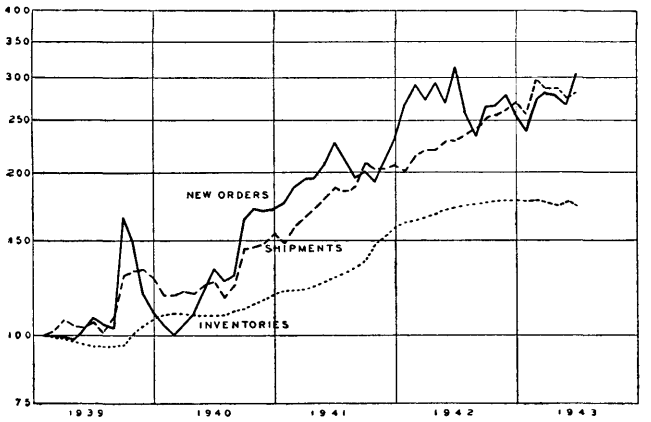
Postwar Prospects

After the war there will probably be a substantial decrease in the use of electric power by the heavy-type industries. In view of the favorable secular trend in the consumption of electricity by these industries, this will be a temporary interruption in the growth of the service. However, if it develops it will have an important effect on the Nation's aggregate consumption of electricity, inasmuch as this group of customers consume nearly half of the total produced by the industry.

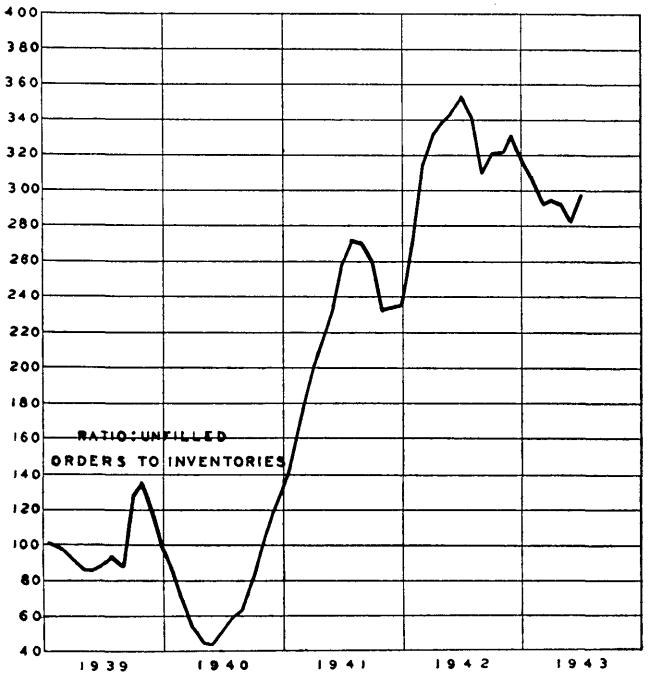
The loss of the demand originating from the war-materials producers will soon be partially offset by increases in residential domestic consumption. Technological developments in electrical labor-saving devices used in the home and in the equipment employed for industrial purposes that in previous years have created growth in the demand for electric energy, will no doubt be continued during the postwar period. In fact there are reasons to believe that this trend may be accelerated. The public will be more impressed by the value of time-saving devices after their war experiences, and new devices that have been developed during the past few years will be placed on the market. However, too great reliance cannot be placed on this factor as offsetting the loss of demand by the war industries, because the combined sales of electricity to urban residential and rural users now constitute only about 16 per cent of the total, so that, even if this business were doubled, it could not be expected to make up for sales of current lost through the cessation of war production.

It is probably safe to conclude that there will be some contraction in the use of electric power during the early part of the postwar period. The consequences of this loss to the power companies should not be serious. The fact that they have been unable to obtain material in substantial quantity during the war period for the construction of new facilities has enabled most of the corporations to accumulate depreciation funds in liquid form, which can be applied for the betterment of plant facilities at appropriate times in the future. Wartime demand for electric power has generally been met with-

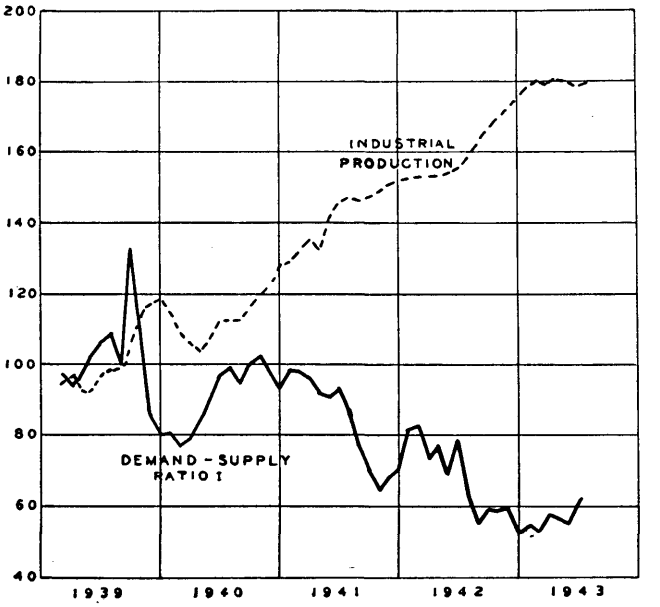
INDEXES OF MANUFACTURERS' NEW ORDERS, SHIPMENTS, AND INVENTORIES
(1939=100)



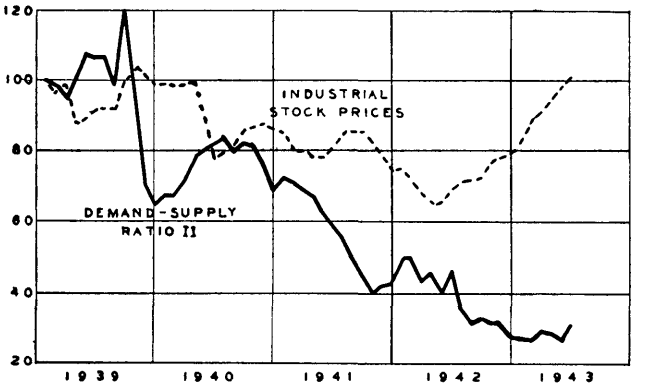
RATIO OF UNFILLED ORDERS TO INVENTORIES



DEMAND-SUPPLY RATIO I
VS. INDUSTRIAL PRODUCTION



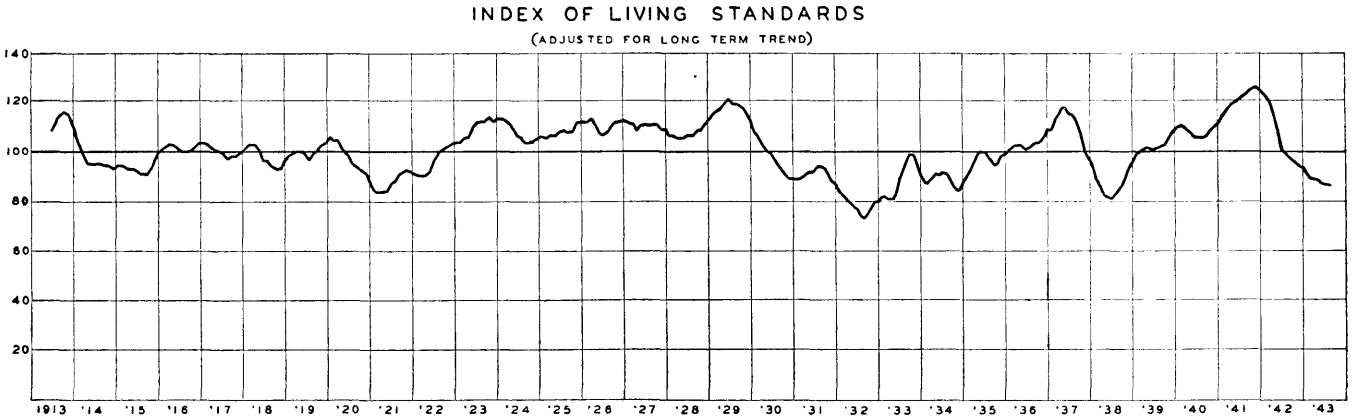
DEMAND-SUPPLY RATIO II
VS. INDUSTRIAL STOCK PRICES



out entailing the construction of elaborate distribution facilities. Outlays by utility companies for equipment needed to distribute electric power have in numerous instances in the past prevented companies from obtaining satisfactory earnings commensurate with the efficiency of their generating equipment.

During the two decades 1920–1939 that preceded the war period, production of electric power from fuel sources increased much more than did production from water power. Kilowatt-hours generated from the consumption of fuel increased 215 per cent during the specified period, whereas electricity produced by water power increased 176 per cent. The experience has been different during the war period 1939–1942 when there was a 46 per cent increase in electricity produced by water power, compared with a 44 per cent increase in power generated from the consumption of fuel. The relative increase in the use of water power for generators may be attributable to the location of new plants for the production of war materials in areas served by the large hydroelectric developments owned by the Government. If such is the case, this shift in the trend may be only temporary.

The foregoing discussion is concerned with the prospects for the postwar volume of business by the electric-power utility companies. Other considerations may affect their profits. As the possibilities of a severe inflationary period have become greater, the inability of the utility companies to adjust rates readily in order to offset rising operating costs under inflationary conditions must be given weight by the investor. To a limited extent increased costs can be absorbed by corresponding increases in revenues, but the situation today indicates that the utilities have passed the stage where further increases in cost can be absorbed. Thus, the postwar prospects for the electric-power companies are reasonably favorable for a satisfactory volume of business, but these utilities may not be able to obtain a commensurate proportion of profits.



Demand-Supply Ratios

The indexes of manufacturers' new orders, shipments, and inventories, published by the United States Department of Commerce last week, revealed at least a temporary reversal in the trend in June from that of the preceding few months. The chart in the upper left-hand corner on page 142 shows the trends since January 1939 of the three indexes.

The new orders index, which declined during April and May, advanced decisively during June and reached a high level exceeded only once (in June 1942) during the war period. The index of shipments also advanced during June, following a downward movement during the preceding three months. However, the advance was less extensive than that recorded by the new orders index, and the position of the index in relation to the base period, 1939, was lower than that of the new orders index. The index of manufacturers' inventories declined during June and was lower than it has been at any time since June 1942.

The ratio of unfilled orders to inventories, shown in the next chart in the same column, was computed by dividing the backlog of orders (obtained by calculating the excess of the new orders index over the shipments index) by the index of inventories. There was an increase in the ratio during June, contrary to the recent trend. This ratio reflects changes in the volume of orders accumulated by manufacturers. When the inventories index is stable, it increases when the volume of new orders exceeds the volume of shipments and of course moves downward when the volume of shipments exceeds incoming orders. The influence of the inventories in the ratio has been negligible during the past year and a half, when the inventories index moved within a narrow range.

The chart at the top of the second column of page 142 shows the Institute's Demand-Supply Ratio I (new orders divided by shipments times inventories) with the Institute's index of industrial production, which is adjusted for long-term trend. Demand-Supply Ratio I improved its position in June in relation to the ratio for May, resuming a trend that has been irregularly followed during the first half of the year. However, the ratio remained at a low level, compared with the base period. The index of industrial production advanced only moderately during June. After reaching a record high level last February, it subsequently remained about unchanged.

The next chart shown in this column presents the Institute's Demand-Supply Ratio II with the index of industrial stock prices. This ratio includes industrial production as well as shipments and inventories in the supply factor. The position of this ratio for June showed a relative improvement over the record for earlier months this year. However, this ratio, like Demand-Supply Ratio I, remained low in relation to the base period. The average of industrial stock prices continued to rise during the first six months of 1943, and in June it was at the highest level reached since the advance in stock prices that immediately followed the outbreak of war in Europe in 1939.

BUSINESS

Index of Living Standards

The Institute's index of living standards declined another small fraction last week. The June index was 87.2; the July index, 87.0; and the August index, 86.8. The volume of consumer goods produced during August was about the same as the total in July but was slightly less than the output of this class of goods six months ago.

If American industry has now been converted from peace to war work about as far as the process is practicable, a stabilization of living standards not far below the present level may be expected. However, we cannot hope that there will be any substantial improvement until one of our major enemies is conquered.

The index shown in the chart at the top of this page reflects the physical volume of consumer goods produced and distributed per capita in the United States. It is adjusted for long-term trend by adapting "weights" given to the component series of the index each year, so that each item has an influence proportional to the year's production. The normal time required for consumer goods to reach the hands of the public is about six months.

Throughout most of the period since we were actively engaged in the war, the goods required by civilian consumers provided by current production has been supplemented by stocks accumulated during the preceding two years. The United States Department of Commerce recently summarized the situation with respect to the depletion of merchants' inventories as follows:

"Wholesalers were the first to draw down their stocks in response to the unprecedented orders placed with them both by retailers and producers. Dollar volume of wholesale inventories reached a peak in March 1942, but by the end of the year were reduced by more than one-fifth. Thus, at the beginning of 1943, holdings of wholesalers were back to 1941 levels in

dollar terms, and below the levels of that year in unit volume. During the first six months of this year, however, wholesale stocks have been at a plateau, despite the fact that sales were above a year ago. This indicates that current inventory levels probably cannot be reduced significantly in relation to sales without drastically changing the methods of doing business.

"Retail inventories began to decline in June of 1942 and have been declining steadily ever since. In relation to sales, retailers had accumulated abnormally large inventories in 1941 and early 1942. But these inventories are now being drawn upon to supplement the reduced flow of incoming goods. Furthermore, continued consumer demands will make further liquidation inevitable. During the first six months of this year the value of retail inventories dropped by over 650 million dollars and an equal drop is expected in the latter six months."[1]

It is apparent that consumers will be forced to rely primarily on current production of civilian goods for the duration of the war. How this will affect the Nations' living standards will not be immediately revealed by available statistics but may be brought to the attention of shoppers who are seeking to supply their needs.

THE FUNDAMENTALS

Supply

The steel-ingot production rate was estimated to be 99½ per cent of theoretical capacity last week. This represented a gain of half a point from the preceding week's revised rate of 99 per cent of capacity. The industry's present situation was summarized by *The Iron Age* as follows: "The ever tightening situation in steel caused by constantly rising demand for plates has been accentuated by new maritime commission orders, which in the case of at least one mill are so great that no other consumers can be served. Steel division officials contend that 95 per cent of delivery promises are being met by steel mills under the Controlled Materials Plan. Regardless of the accuracy of this figure, a majority of steel users and producers holds to the firm belief that steel distribution as now controlled by the government is far more efficient than at any time since war began."

	1929	*1932*	*1937*	*1938*	*1942*	*1943*
Per Cent of Capacity	87.5	12.0	73.0	41.0	97.7	99.5

(Latest 1943 weekly data; corresponding week earlier years)

Electric-power production last week exceeded output in the corresponding week of 1942 by 18.7 per cent. A new high production record was made when 4,322,-195,000 kilowatt-hours were generated. Reports from most of the regions in the country were more favorable than they were in the preceding week. The distribution of electric power in the Pacific Coast region and in the Southern States was approximately 23 per cent greater than it was a year ago.

	1929	*1932*	*1937*	*1938*	*1942*	*1943*
Billion Kilowatt-Hours	1.68	1.44	2.15	2.05	3.64	4.32

Lumber production decreased more than seasonally last week, and the adjusted index declined from 112.4 in the preceding week to 110.7 per cent of the 1935–1939 monthly average. The major business of the lumber mills since we entered the war has originated from Government orders. Specifications issued by the Government for special grades and sizes have resulted in virtually eliminating reserve stocks of the chosen cuts. Although lumber yards continue to report some reserve stocks, in many cases these consist of lumber of dimensions for which there is little demand at the present time.

	1929	*1932*	*1937*	*1938*	*1942*	*1943*
New York Times Index	134.8	35.9	83.5	72.0	117.4	110.7

Demand

The dollar volume of department-store sales last week was only one per cent greater than that for the corresponding week of 1942. During the fall and winter months, there will probably be a test of the extent to which the public will adopt an attitude of restraint toward buying during a period when wage and salary incomes are increasing. (The opinion was expressed by officials of the United States Department of Commerce that "consumer incomes, even after deduction of currently paid income taxes, are expected to go on rising.") There is at present no evidence that this restraint will be observed. It is reported that the buying of apparel has been on a larger scale in relation to incomes this year than it was during either 1941 or 1942. Probably in part this buying represents the diversion of demand from merchandise that is no longer available to such goods as may still be obtained.

Prices

The sensitive wholesale commodity price indexes were higher last week than they were in the preceding week. Moody's Spot Commodity Price Index was 246.3 on August 26 and 247.2 on September 2. The Dow-Jones Index of Commodity Futures closed at 93.04 on August 26 and at 93.35 on September 2.

Both of the sensitive wholesale commodity price indexes have recovered from the decline that occurred during July and are now close to the highest levels recorded during the wartime advance. At the present level, the spot commodity price index is 75 per cent higher than it was at the end of August 1939, just before the war began. The futures index has advanced more than has the spot commodity price index, and last week it was nearly twice as high as it was at the end of August 1939.

The National Industrial Conference Board reported a decline of more than one point in the combined cost-of-living index from the June to the July level. A decrease in food costs of approximately three per cent more than offset minor increases in other items. The combined index and separate items for July 1914, just before the first World War started; for June 1920, the month in which the peak in commodity prices was recorded during the first World War period; for August 1939, the eve of the outbreak of the second World War; and for June and July 1943 are shown in the following table:

	July 1914	*June 1920*	*Aug. 1939*	*June 1943*	*July 1943*
All Items Combined	61.3	192.0	84.0	104.3	103.1
Food	66.1	147.2	75.3	115.8	112.4
Housing	57.7	91.2	86.3	90.8	90.8
Clothing	58.8	149.9	71.9	88.5	88.8
Fuel and Light	63.3	98.6	84.0	92.3	92.5
Sundries	59.0	107.3	96.9	107.1	107.2

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[1] *Survey of Current Business*, August 1943, page 5.