

JUNE, 1943



# BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO



# Review of Seventh District Business

## *Aggregate Industrial Production Shows Levelling Tendency*

Economic developments in the Seventh Federal Reserve District and the nation during April and May lend credence to current predictions that over-all industrial production is nearing its all-time record peak, although some further gains among individual products are to be expected during coming months. The additional output forthcoming, however, must come principally from more expeditious use of available manpower and materials rather than from possible limited expansion of already over-extended supplies. Changing demands of the armed forces, commonly unforeseeable, will necessitate continued shifts in plant equipment, workers, and production schedules, obviously adding to the complexity of the situation.

### **MANPOWER REPLACEMENTS NEEDED**

The emphasis in labor recruitment is now shifting from "expansion" to "replacement" principally of Selective Service withdrawals. Two or more workers are estimated to be needed for replacement during 1943 for every one needed for expansion. Inability to obtain adequate numbers of workers to offset losses, moreover, is critically aggravating the manpower problem for numerous trade and service establishments, including some non-war industries producing goods important to civilian life. Women not yet employed still constitute the largest labor reserve, but problems of child care and home duties are strong deterrents to many women entering the labor force. The regional director of the War Manpower Commission currently estimates that 100,000 women not now in the normal labor supply will be needed by Chicago industries. The WMC reports that the Detroit industrial area has virtually exhausted its local labor supply "until ordinary civilian activities are on the verge of collapse," with recruitment of women extended to the point that "normal home life is seriously endangered."

The agricultural labor situation remains tight but Congressional authorization of 26 million dollars to finance a land army to meet farm labor shortages, importation of farm workers from Mexico and the West Indies, and proposed use of war prisoners on farms may afford some aid in carrying out 1943 crop operations. The farm labor army is being recruited and assigned largely by state and Federal agricultural extension services. A substantial movement of industrial workers to farm employment since February, presumably to obtain security from the draft, has helped agriculture at the expense of industry and trade.

A temporary regulation issued by the Chicago office of the War Manpower Commission has deferred until July 16, 1943 the full effect of the WMC "job-freeze" order rigidly restricting movements of workers between jobs. A worker in an essential job may now change to an "unclassified activity" provided he does not get more money. A worker who in the last 30 days held a job in an "unclassified activity" may transfer to an essential position "without restriction and with regard to wage or salary rates." An authorized statement of availability from the employer or review unit of the United States Employment Service is prerequisite to new employment.

The "quit" rate in manufacturing, excluding Selective Service withdrawals, in March 1943 was 5.36 persons per 100 employees as compared with 3.02 persons during March 1942, according to the U. S. Bureau of Labor Statistics. Lay-offs and discharges declined from 1.52 to 1.09 persons per 100 employees during the same period. Industries with "quit" rates of more than 6 per cent in March were: furniture and finished lumber products, food and kindred products, tobacco, paper and allied products, textile mill products, and leather and leather products.

### **NEW LABOR DISPUTES ARISE**

A flurry of threatened and actual work stoppages including the coal wage-contract controversy has affected a number of industrial plants in the District and the nation. Interruptions in work for short periods have occurred during recent weeks in some of the District's leading manufacturing centers, principally Detroit, Chicago, and Indianapolis.

The potentially most serious work stoppage has been in the coal fields of the Appalachians and the Mid-West which supply vital fuel to war industries. The United Mine Workers through their spokesman, John L. Lewis, have demanded from coal operators a wage increase of two dollars a day, minimum daily wage of eight dollars, portal-to-portal payment, and unionization of all supervisory employees below superintendent. Since March 31 when the former contract expired, work in the mines has continued, except for two serious stoppages, under temporary extensions of the original contract. Negotiations have broken down repeatedly and settlement of the major dispute has not yet been attained. The U.M.W. and the Illinois Coal Operators Association, however, have reached a tentative accord on

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# Outlook for Machine Tool Industry

## *Difficult Task of Equipping War Industries Approaches Completion*

With most of the nation's war industries "tooled up" and operating at peak capacity, builders of machine tools, vital to mass industrial output, now anticipate a marked decline in present lines of production from current high levels by the end of 1943 or early in 1944. For a majority of the companies the point has not yet been reached where actual machine tool operations are appreciably reduced. In some plants shifts already have been made into production of direct war materials, however, and in numerous others moves into new lines of war production are considered almost inevitable during coming months.

Total machine tool shipments in 1943 are expected to fall about 10 per cent below the record year 1942 when shipments were valued at 1,320 million dollars. In pre-war 1939 shipment values were estimated at less than 200 million dollars, and in 1932 less than 25 million dollars, a record low, indicating the cyclical nature of output. With allowance for price increases, actual machine tool production during 1942 was five to six times above the 1939 level. Since December 1942, the all-time record month when shipments were reported worth 132 million dollars, the trend has been downward, reaching 114 million dollars in March 1943. Production of direct war materials, however, is expected largely to offset reduced machine tool demand during the remainder of the war for most companies.

Manufacturers of standard machine tools such as millers, planers, and lathes are among the first to be affected, principally because demand for such general-purpose machinery has declined markedly in recent months. On the other hand, orders for certain specialized types of machinery are being maintained more consistently. Builders of specialized, single purpose machinery consequently will probably continue in volume production until at least the first quarter of 1944, according to present estimates based on order backlogs and taking into consideration possible contract cancellations.

Possibilities of machine tool production during the long-run post-war period attaining a scale approaching current operations are unfavorable, particularly to the extent that wartime produced machine tools are adaptable to peacetime uses. The United States government alone now reportedly owns machine tools equivalent to 10 years' normal output of the industry. Some estimates indicate that the machine tool industry has saturated its principal markets for perhaps a quarter of a century, or at least until 1960.

While a great deal of the future demand for machine tools is unquestionably already satisfied, some members of the industry foresee important machine tool outlets in (1) some replacements of machines now engaged in war work, chiefly because of the severe use to which machines are subjected, (2) orders for new machines necessitated by the changing requirements of war, (3) post-war retooling of industries converting from war to civilian production, (4) tooling of new peacetime industries, and (5) new machinery designs which promise to render many existing machines obsolete. Whatever optimism there is within the industry is tempered however by such other considerations as: government contract renegotiations, abnormally large inventories presenting physical as well as financial problems, the manner in which the government will dispose of its machine tools and plants in post-war years, length of time required to settle mutual claims with the government, probable price-wars in post-war years because of over-expanded facilities, and potentially strong international competition for post-war foreign markets. Individual machine tool builders nevertheless are making every effort to protect themselves as far as possible against losses during coming months and in the post-war period by seeking new fields of business and by encouraging their engineers to improve old machines and develop new ones.

### ROLE OF MACHINE TOOL INDUSTRY

Machine tools and accessories are indispensable prerequisites to modern industrial production. The machine tool industry embraces establishments engaged primarily in the manufacture of power-driven machines for working on or bending metal. Machine tool accessories include attachments to machine tools such as dies, i.e., metal blocks with the pattern or contour of a part reproduced on their surface used in presses or forging hammers to form identical metal parts; jigs, i.e., holding devices to guide tools accurately during machine operations; fixtures, i.e., devices to hold in place material to be machined; tools, i.e., actual implements of machines which do the cutting, drilling, shaving, and milling; and gages, i.e., instruments for measuring accurately the dimensions of manufactured parts. Without thousands of these precision machine tools and accessories, mass production of goods such as now attained in war industries would not be possible.

Tool and die shops attained industry status after World War I to a large extent as an outgrowth of the



frequent changes in automobile models engendered by intense competition among automobile manufacturers. Tooling requirements were commonly too great for facilities within the automobile plants, and consequently independent shops sprang up to supplement plant machine tool production. Most of these comparatively small shops were started by highly skilled craftsmen formerly employed in the automobile and related factories. The experience gained by workers in dealing with the wide range of automotive and related manufacturing problems proved to be of inestimable value in designing machinery for new war plants and in converting peacetime industrial facilities to war use.

Machine tool companies are typically small as compared with many other metal products firms. Many have been started by the banding together of a few skilled metal workers with only limited financial resources. Firms with assets of \$1 million or more are considered to be large. A sizable part of the value of machine tool production represents the value added by manufacture, and consequently purchases of raw materials are small relative to most other heavy industries. Because many machine tools are built to meet the customer's individual specifications, inventories of finished goods are ordinarily negligible.

The machine tool and accessories industries are very sensitive to economic conditions, expanding vigorously in boom periods and declining as sharply during depressed times. A general post-war depression would clearly bring disaster to machine tool builders regardless of whether current production may itself largely destroy the post-war market for other than specialty machine tools and accessories. The index of machine tool shipments (1935-39 equals 100) stood at 98 in 1929 after an irregular rise from 12 in 1921. By 1932, the index had again fallen to 12, but subsequently gained along with rising general business conditions to 103 in 1937. Following the recession in 1938, shipments resumed an upward trend which continued without interruption to the reported index level of 700 in 1942 and have since declined slightly.

In 1939, machine tool plants in the five states included in whole or in part in the Seventh Federal Reserve District produced nearly one-fourth of all such products in the nation. District output was valued in excess of \$50 million, and nearly 8,500 wage earners were employed. Machine tool accessory production in the District constituted about half the national total and was valued at more than \$60 million, using almost 11,000 workers.

The Seventh District states in short produced about one-third of the nation's peacetime machine tools and accessories before the record wartime expansion which has occurred. Leading machine tool centers in the Sev-

enth District during peace and war include Detroit, Chicago, Rockford, Milwaukee, and Indianapolis. In addition plants are also located in more than a score of other District cities, especially in Illinois and Michigan. Many of the present machine tool builders came into the industry after Pearl Harbor, shifting from related civilian work.

#### UNPRECEDENTED EXPANSION AND PRODUCTION

The machine tool industry began its present record expansion in 1939 after the outbreak of war in Europe. Large orders from belligerent nations coupled with early defense preparations here provided the initial stimulus to growth of machine tool manufacturing facilities. The greatest strain on the industry's capacity came immediately after Pearl Harbor when the automotive companies and many others were swamped with orders for tanks, guns, ammunition, aircraft, marine equipment, and numerous other war materials.

Data on overall expansion of machine tool production facilities are not available, but tool and die establishments associated with the automobile industry are estimated to have more than tripled in number since Pearl Harbor. Within the Seventh District, machine tool and accessory plant expansion has been at least equal to the growth in other sections of the nation. Michigan and Illinois have led in both expansion and output, largely because of their established peacetime importance as machine tool producing states, and wartime importance in producing metal war materials. Actual plant expansions have been greatest in the Detroit, Chicago, Milwaukee and Rockford areas. Plant facilities expansions have been financed by both private and public funds, but are largely dominated by the latter.

Among representative machine tool plants in the District, dollar outputs in 1942 were from two to twelve times larger than in 1939. Employment in the Seventh District machine tool industry is estimated to have increased at least 200 per cent from 1939 to 1943. Payrolls are estimated to have gained more than 350 per cent during the same period.

#### MACHINE TOOL MARKETS

While war conditions in general have given rise to this expansion, the bulk of the current demand for machine tools is concentrated among a few dominant war industries. Under normal conditions the manufacturers of automotive equipment and parts are the largest users of machine tools. Other major consuming industries are steel, railroad and electrical equipment industries, construction, and naval ordnance. Currently during wartime these same activities along with aircraft, shipbuilding, and general ordnance are the principal machine tool users. Machine tools built in the Seventh District



are now in use in factories throughout this country and probably in most of the other Allied nations.

Depending upon the length of the war, and the rate of machine tool use, which is now far above normal because manufacturing operations are in many cases on a 24-hour day and 6 or 7 day week basis, machine tool production for replacement nevertheless will probably remain a small fraction of current over-all production. Replacement, particularly of expendable tools and parts, however, is expected to overshadow new tooling for many machine tool builders during coming months.

The exigencies of battle and military and naval strategy from time to time create a demand for new machine tools to produce new and redesigned weapons. There is little likelihood, however, that such recurring demand will be sufficient to keep the industry operating at more than a small fraction of present capacity, although certain firms may benefit materially from particular orders.

In the months immediately ahead, most machine tools will be built for use in the aircraft industry which is still undergoing substantial expansion and retooling for new types and models of planes. About two-thirds of outstanding machine tools on order are estimated to be for use in aircraft plants.

#### CURRENT PRODUCTION PROBLEMS

Thus far the decline in machine tool orders has in no significant way minimized problems associated with completing the still large volume of orders outstanding. The manpower situation remains critical for a large section of the industry.

Slowing down of operations and lay-offs have not been large to date, although a number of machine tool plants have shortened their work-weeks. Some machine tool firms however are not attempting to replace all workers who now leave their employ for service in the armed forces or for other reasons.

There is probably no single machine tool plant which cannot use more skilled operators. Plants situated in communities which do not have many other major war industries such as Rockford, Illinois, have been more fortunate in building up and maintaining their labor forces than those located in such concentrated industrial areas as Detroit. An important limitation on output for some machine tool builders has been inability to obtain a sufficient number of trained engineers to design and supervise construction of special machines. Workers to fill unskilled jobs in the so-called "labor gang" have been exceptionally difficult to employ in recent months. Women ordinarily are not used extensively in machine tool plants. Before the war they were used exclusively in central office work, but now some perform bench assembly and inspection work. The U. S. Department

of Labor found at the close of 1942 that women still constituted only two per cent of the factory force in 46 major machine tool plants studied. The trend however is definitely toward the further use of women, but the extent to which they will be used in the future will depend largely upon (1) the level of employment in machine tool production (2) Selective Service withdrawals, and (3) the possible greater use of women when machine tool firms convert to direct war production. Negroes constitute a very small fraction of all employees and most of these are laborers, helpers, material handlers, and janitors.

Costs of production in the industry have mounted since the outbreak of hostilities commonly because of rising costs of materials and labor, and some lessening of production efficiency arising out of the use of less skilled labor and emphasis upon speed in production. Hourly earnings including extra payments for overtime and night work averaged about \$1.023 in February 1943 as compared with about \$0.80 in 1939. Hours increased from about 42.5 to more than 52 during the same period.

The importance of machine tools to the war effort has enabled builders to obtain high preference ratings for critical materials, and few serious interruptions in output have been caused by shortages of such materials. Substitute materials have been used to a moderate extent. The quality of some machine tools produced under war conditions may have suffered somewhat. Greater use of lower alloy steels in the future may further influence quality unfavorably.

Machine tool builders are naturally concerned about contract cancellations. Until very recently orders were frequently placed in haste for "security" reasons, and subsequently often cancelled. So long as the industry was operating with a large backlog of orders there was little difficulty in adjusting to new production schedules especially when work had not begun on the cancelled orders. Standard machine tool builders were obviously affected the least since they continued to build the machines and simply delivered them to different purchasers. Now that orders are typically declining, cancellations loom of far greater importance. Unfinished machine tools, specialized or standard, for which there is no demand raise at least a two-fold problem: (1) how to dispose of the physical product which occupies space needed for building other machines, and (2) how to settle the attendant financial matters which usually concern government funds, guarantees, and often ownership as well. Changes in military and naval requirements of course alter the demand for machine tools and necessitate certain contract cancellations. Machine tool builders do not expect continued stability in operations; long experience has shown that is generally not

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# War Alters Retail Credit Pattern

## Annual Survey Shows Rise in Cash Payments

Consequences of war are reflected in the shifting pattern of retail trade; and in the movement of credit is mirrored the change in the paying habits of consumers under the restrictions of a war economy. These facts are revealed in the 1942 Retail Credit Survey just completed for the Seventh Federal Reserve District.

Some of the important forces which have been exerting a downward influence on consumer credit have been the decline in the supply of consumer goods, the limitation on the sale of certain articles and the increase in consumer purchasing power. To these factors was added the restrictive influence of Regulation W of the Board of Governors of the Federal Reserve System.

Despite these restrictive influences, the total volume of retail sales at Seventh District stores that participated in the Survey moved forward in 1942 over the volume in 1941. Cash sales rose 20 per cent. Open-book credit increased 4 per cent, but instalment sales declined one-third. Consumer debt at these retail establishments was 31 per cent lower. Notwithstanding these shifts, the American habit of buying now and paying later has not entirely disappeared from the retail trade picture. In the Seventh District, cash sales accounted for 48 per cent of total sales in 1942, whereas they represented 43 per cent in 1941. Open-book credit amounted to 43 per cent in 1942 and 44 per cent in 1941. Instalment sales were reduced to approximately 8 per cent in 1942,

whereas they represented 13 per cent of sales in 1941.

The results of the survey which covers retail sales during 1942, were made possible by the cooperation of 1,554 firms engaged in fifteen lines of trade in the Seventh Federal Reserve District. The fifteen trades represented in the report were selected because of their large volume of credit business. The Bureau of Foreign and Domestic Commerce, which originated the credit survey in 1930, estimated that the fifteen lines of trade accounted for about 75 per cent of the aggregate national retail volume in 1939, and 90 per cent of national retail instalment volume in the same year. Shifts, of course, have occurred since the 1939 Census figures were published, but the field covered in the survey probably still represents the great bulk of retail sales and credit.

The present survey was conducted as part of the national study undertaken for the first time by the Federal Reserve System. The sample included not only firms which formerly reported to the Bureau of Foreign and Domestic Commerce but also additional stores so as to increase the coverage of trading areas in the Seventh Federal Reserve District.

The relatively large dollar volume of sales reported by department stores, where units are usually of large size and engage in credit selling, reveals a fundamental characteristic of the type of return secured throughout the survey. Because of their interest in matters pertain-

CHANGES IN RETAIL SALES AND CREDIT  
IDENTICAL STORES IN SELECTED LINES OF TRADE IN THE SEVENTH FEDERAL RESERVE DISTRICT

Kind of Business	Per Cent of Total Sales	Number of Stores	Per Cent Change 1942 from 1941						
			Annual Volume of Sales				Receivables At End of Year		
			Total	Cash	Open Credit	Instalment	Total	Open Credit	Instalment
Automobile dealers . . . . .	1.5	29	-76.9	-77.0	-43.1	-85.2	-67.3	-35.7	-72.9
Automobile tire and accessory stores.	1.0	81	-26.0	+17.1	-28.2	-55.0	-56.2	-48.0	-66.9
Coal, fuel oil, and wood dealers . . . . .	3.3	41	+12.1	+26.2	+7.8	-16.7	-7.7	-5.5	-51.9
Department stores . . . . .	66.2	65	+14.2	+29.4	+1.2	-17.5	-26.6	-20.6	-42.6
Furniture stores . . . . .	4.4	95	-5.5	+57.1	+10.6	-17.7	-34.0	-23.4	-34.7
Grocery stores . . . . .	1.3	947	+9.5	+12.1	-1.8	—	-3.0	-3.0	—
Hardware stores . . . . .	1.1	40	+8.2	+27.1	-7.2	-19.7	-45.0	-44.9	-45.7
Heating and plumbing equipment dealers . . . . .	0.4	33	-14.6	+13.6	-18.5	-34.5	-37.4	-37.5	-34.7
Household appliance stores . . . . .	1.2	36	-34.1	+1.6	-22.3	-53.0	-50.0	-46.8	-52.3
Jewelry stores . . . . .	1.2	28	+11.4	+47.1	-6.2	-21.0	-39.7	-32.1	-42.5
Lumber and building material dealers . . . . .	3.1	59	-3.8	+19.0	-6.1	+10.5	-45.4	-45.4	-56.2
Men's clothing stores . . . . .	3.6	32	+5.3	+32.2	-17.6	-6.6	-42.0	-49.7	-3.0
Milk dealers . . . . .	9.2	24	+35.6	+31.7	+36.2	—	-5.4	-5.4	—
Shoe stores . . . . .	0.4	25	+23.9	+30.4	+7.6	—	-15.3	-15.3	—
Women's specialty stores . . . . .	2.1	19	+20.4	+52.9	+2.1	+69.8	-18.4	-20.2	+184.1
Total . . . . .	100.0	1,554	+5.9	+20.3	+3.5	-33.2	-30.9	-24.2	-41.3



## DISTRIBUTION OF TOTAL SALES

Kind of Business	Percentage of Total Sales					
	In Cash		In Open Credit		In Instalment	
	1942	1941	1942	1941	1942	1941
Automobile dealers.....	54.2	54.4	22.4	9.0	23.4	36.5
Automobile tire and accessory stores.....	28.9	18.3	57.4	59.2	13.7	22.5
Coal, fuel oil, and wood dealers.....	28.2	25.0	70.8	73.6	1.0	1.4
Department stores.....	58.0	51.1	36.4	41.0	5.6	7.9
Furniture stores.....	19.3	11.6	14.5	12.4	66.2	76.0
Grocery stores.....	83.3	81.4	16.7	18.6	—	—
Hardware stores.....	55.3	47.1	40.4	47.1	4.3	5.8
Heating and plumbing equipment dealers.....	19.7	14.8	76.0	79.6	4.3	5.6
Household appliance stores.....	15.3	10.0	51.9	44.0	32.8	46.0
Jewelry stores.....	55.7	42.1	21.1	25.2	23.2	32.7
Lumber and building material dealers.....	10.7	8.7	88.6	90.7	0.7	0.6
Men's clothing stores.....	55.4	44.1	36.9	47.2	7.7	8.7
Milk dealers.....	11.5	11.9	88.5	88.1	—	—
Shoe stores.....	75.2	71.4	24.8	28.6	—	—
Women's specialty stores.....	40.9	32.2	55.0	64.9	4.1	2.9
<b>Total.....</b>	<b>48.4</b>	<b>42.6</b>	<b>43.3</b>	<b>44.3</b>	<b>8.3</b>	<b>13.1</b>

ing to credit, stores with credit sales of sufficient volume to require specialized supervision are more inclined than others to submit their data on a voluntary basis. Trade samples, therefore, tend to reflect the experience of two general types of stores: first, stores with substantial percentages of credit sales to total sales regardless of the size of the store; and second, large stores in which even relatively small percentage of sales on credit may represent a volume of credit business requiring a specialized credit management function.

The largest number of automobile dealers reporting did a volume of business ranging from \$100,000 to \$500,000. Auto tire and accessory stores which reported were mostly in the group with an annual sales volume of \$25,000 to \$100,000. Department stores are large scale operators, and the greatest number reporting had an annual volume of \$1,000,000 to \$5,000,000. There were, however, six returns from stores each of which did a volume of more than \$20,000,000.

### INCREASE IN CASH SALES

Cash buying has increased in all lines except automobiles, but even in that line of trade the ratio of cash sales to total sales registered practically no change from 1941. The increase in cash sales has been greatest in the furniture trade which came under the restrictions of Regulation W during 1941. The pressure of higher incomes has been felt in all lines of trade, whether regulated or not. More than 19 per cent of all furniture sales were made for cash in 1942, whereas only 12 per cent of sales were for cash in 1941. Automobile dealers, department stores, hardware stores, jewelry stores, and men's clothing stores each had cash sales of more than 50 per cent of total sales. Grocery stores and shoe stores

are traditionally cash dealers and their cash sales were 83 per cent and 75 per cent, respectively.

### INSTALMENT CREDIT DECLINES

The Seventh Federal Reserve District experienced a sales trend which was contrary to what might have been expected during a period of expanding income payments. It is normal during a cycle of increased employment and rising wages for consumer credit to expand. Persons with increased incomes and a feeling of security are more inclined to mortgage future income than they are during periods when unemployment is increasing and wage payments and salaries are declining. This reversal of form has been brought about by wartime conditions which have forced the higher income payments into different channels than they might have taken in peacetime.

The increase in incomes has not been accompanied by a corresponding increase in the supply of goods available for purchase. Moreover, the limitations on the purchase of such consumer's goods as were available, particularly those traditionally sold on long-term credit such as automobiles, refrigerators, and automobile tires, have brought about a change in buying habits and forced spending into other channels. The reduction of consumer debt was the natural consequence.

With the virtual elimination of the automobile dealers as originators of instalment sale credit, furniture dealers have now become the most important creators of such credit. This fact is due in large measure to the great curtailment to date in production of most other lines of consumer durable goods. The restrictions on the manufacture of furniture have been less severe than on other lines. There has been no rationing of furniture and no



priorities have been needed for the purchase of such goods. With higher incomes, people refurnish their homes. Nevertheless, total sales at reporting stores are down 6 per cent from the 1941 volume, and instalment sales declined 18 per cent during 1942. In the ratio of instalment sales to total sales, furniture dealers lead all other lines of trade. Their ratio during 1942 was 66 per cent. Household appliance stores had a ratio of 33 per cent, jewelry stores 23 per cent, and automobile dealers 23 per cent.

The decline in instalment sale credit extended has not been as severe as might have been expected when the various limitation and conversion orders were first issued. The conversion of the washing machine industry to war work, and the similar conversion of many other lines was expected to curtail instalment sales to a marked degree. The limitation on the production of various other lines of trade which produce items normally sold on the instalment plan was also expected to act as a serious brake on the granting of instalment sale credit. Stocks of finished products in the hands of manufacturers, jobbers, wholesalers, and distributors have served as a cushion and slackened the decline in the instalment sales of such articles. Moreover, substitutes have been found for critical materials and new methods of manufacture have lengthened the supply of some consumers' durable goods moving to market. As accumulated inventories diminish, instalment sales can be expected to show further declines. Of the fifteen lines of trade surveyed, automobile and household appliance credit will disappear almost entirely.

#### ACCOUNTS RECEIVABLE DECLINE

The volume of accounts receivable outstanding at the end of 1941 held by reporting retail establishments at

the end of 1942 was 31 per cent less than a year previous. While the largest decline was in the automobile trade, there were sharp reductions in all lines. This contraction has been accomplished by an increase in collections, by a decrease in instalment sales and possibly by the sale of instalment paper. The decline in accounts receivable has also been particularly heavy in auto tires and accessories, hardware, household appliances, lumber and building materials, and men's clothing.

The decline in open-book credit outstanding has been common to all lines of trade although in most lines it has not been as severe as the reduction of instalment accounts. While in no instance did the reduction of open-book credit reach 50 per cent, the decline in instalment credit outstanding was as high as 73 per cent. This reduction was in automobile instalment receivables and is in sharp contrast with the increase of 184 per cent in women's specialties, the only trade to show an increase in instalment credit outstanding. The reduction for all lines of trade combined was 41 per cent.

#### CHANGES IN COMPOSITION OF RECEIVABLES OUTSTANDING

Although there have been different rates of liquidation of consumer credit in the various lines of trade, the ratios of open-book credit outstanding to total receivables held by reporting firms have not shown as wide fluctuations as might have been expected. This is also true of instalment receivables. With few exceptions, the changes have not been particularly significant. The ratio of open-book receivables to total credit outstanding in the automobile trade shows that open-book credit was 29 per cent of the total, whereas it was only 15 per cent at the end of 1941. This shift decreased the ratio of instalment credit to 71 per cent of the total. Auto tire

#### DISTRIBUTION OF CREDIT OUTSTANDING

Kind of Business	Percentage of Total Receivables			
	In Open Credit		In Instalment Credit	
	1942	1941	1942	1941
Automobile dealers.....	29.4	15.0	70.6	85.0
Automobile tire and accessory stores.....	67.4	56.8	32.6	43.2
Coal, fuel oil, and wood dealers.....	97.6	95.3	2.4	4.7
Department stores.....	78.6	72.7	21.4	27.3
Furniture stores.....	7.1	6.2	92.9	93.8
Grocery stores.....	100.0	100.0	0	0
Hardware stores.....	85.6	85.4	14.4	14.6
Heating and plumbing equipment dealers.....	96.0	96.1	14.0	3.9
Household appliance stores.....	44.3	41.6	55.7	58.4
Jewelry stores.....	29.6	26.3	70.4	73.7
Lumber and building material dealers.....	99.8	99.7	0.2	0.3
Men's clothing stores.....	72.5	83.6	27.5	16.4
Milk dealers.....	100.0	100.0	0	0
Shoe stores.....	100.0	100.0	0	0
Women's specialty stores.....	96.9	99.1	3.1	0.9
Total.....	66.7	60.8	33.3	39.2



and accessory dealers reported that their open-book receivables at the end of 1942 were 67 per cent of the total and that instalment receivables were 32 per cent. Practically no change was reported by hardware stores, heating and plumbing equipment dealers, lumber and building material dealers; and, of course, milk dealers, shoe stores, and grocery stores reported no change as their sales are not made on the instalment plan. Men's clothing stores and women's specialty shops were lines of trade which reported declines in the ratio of open-book credit outstanding to total receivables.

## OUTLOOK FOR MACHINE TOOL INDUSTRY

(Continued from page 3)

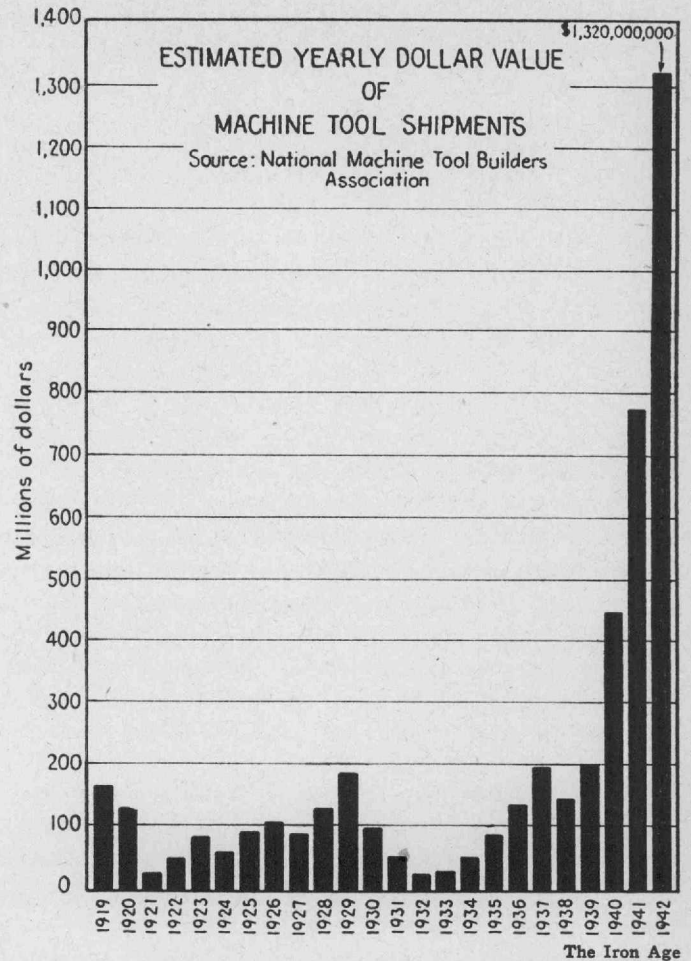
possible. They want only orders now for machine tools which are actually known to be required by the war effort. They obviously do not care to aggravate problems to be faced in future months and years by wasteful production now.

### BUILDERS FACE FUTURE

The machine tool builders have accomplished a task during the present emergency comparable with any other industry contributing to the war effort. Approximately 300 machine tool plants in the nation have tooled up the greatest war industry in the world in the space of only a few months.

This splendid record however does not change the outlook for the future which is for the most part unfavorable. Productive capacity has been expanded to such an extent that a much larger volume of orders is needed now than in normal times to keep the industry working at capacity or near capacity. Present estimates are that the downward trend in machine tool production will not level off until operations are at about 50 per cent of capacity. The current three to seven months average backlog of orders will gradually be consumed and the industry placed on a hand-to-mouth production basis unless the war should quickly terminate, bringing a temporary wave of machine tool orders for reconversion purposes.

Because of the widespread need for direct war materials there is little likelihood that available productive facilities of machine tool plants will be allowed to stand idle. Parts manufacture appeals strongly to many machine tool firms and a number of sub-contracts already have been awarded. The American situation is likely soon to resemble the British where industry has been



The yearly estimated dollar volume of machine tool shipments, which includes only power-driven machine tools that cut metal in the form of chips. Estimates for 1919 to 1925 are based on new orders representing about 60 per cent of the industry; 1926 through 1940 on shipment reports of about 85 per cent of the industry; and the 1941 and 1942 estimates from WPB data based on 95 per cent of the industry.

tooled up generally for some time. The machine tool industry nevertheless continues at peak levels manufacturing a combination of replacement tools, new type tools, and direct war materials.

A reverse shift back into machine tool production is to be expected for many of the firms as soon as civilian goods are allowed to be produced. The machine tool industry or large parts of it may experience a temporary boom during this reconversion period. How many machine tools, old or new, will be shipped to devastated countries to aid in the rehabilitation of foreign industry will affect markedly post-war machine tool production in this country. Foreign competition is definitely expected to cloud the post-war picture for machine tool builders in the Seventh District and the nation.



## REVIEW OF SEVENTH DISTRICT BUSINESS

(Continued from inside front cover)

a portal-to-portal settlement of \$1.50 per day increase for the miners, but subject to revision if the Appalachian miners and operators reach a different agreement.

The prolonged lakes freeze, a shortage of shipping space and the need to increase movements of grain have led to the reduction in 1943 quotas for Great Lakes shipments of coal and iron ore to 50 and 91 million tons, respectively. The Office of Defense Transportation cut 9 million tons from the original coal estimates and confirmed a recent War Production Order eliminating 4 million tons from the initial iron ore goal. Actual lakes shipments in 1942 were 49 million tons of coal and 92 million tons of iron ore. Ship movements to June 1, 1943 were far behind the previous year, with only 12.9 million tons of ore loaded since the opening of the season as compared with 21 million tons for the same period a year ago. Five million tons of coal had been moved by May 3 this year in contrast to 7.8 million tons by the same date in 1942. Normal daily shipments were not attained until late in May. The amount of space allocated to grain shipping is expected to be somewhat under the War Food Administration's request for 160 million bushels of domestic grain plus some 80 million bushels of Canadian wheat and other feed grains. Canadian vessels will assist in the Great Lakes grain movement but will render correspondingly less aid in ore shipments.

### STEEL SUPPLIES REMAIN TIGHT

The government order announcing a reduction in new war plant construction and machine tool production is not expected to relieve appreciably current problems of steel supply because released steel will be quickly absorbed into any of a vast number of important other uses to further the war effort. There is considerable doubt among steel producers that expansion of steel making facilities during 1943 will be sufficient to carry net capacity tonnage to the goal of 96 to 97 million tons set for the year. Probably the figure will be closer to 94-95 million tons according to current estimates. The steel industry has experienced difficulty in obtaining steel for its own use. One critical phase in the expansion program concerns blast furnace coke ovens. The increased consumption of coke per ton of pig iron produced together with quality problems, need for repairs of ovens, a decline in the reserves of coking coal, and a serious drain on general coal stocks are raising serious problems for the industry.

District and national steel ingot production has lagged in recent weeks principally because of furnace repairs. Operations in Chicago were 97 per cent of capacity at the close of May; Detroit operations which are smaller

and which tend to fluctuate more widely were at 102.5 per cent of capacity. Because of furnace repairs and restricted iron ore movements, some industrialists fear that a serious drain on scrap supplies may occur.

The WPB has abandoned for the present at least plans to concentrate production in certain industries so that the manufacture of specific articles would be restricted to a relatively small number of plants. WPB Chairman Nelson explained that the WPB has found no satisfactory formula or general plan for such concentration primarily because each industry poses separate problems and commonly is related closely to other industries.

### PETROLEUM DISTRIBUTION MODIFIED

The far-reaching program affecting the supply and distribution of petroleum in the Middle West, placed in operation during April by the Petroleum Administrator for War, is causing numerous adjustments in the industry. The zone plan seeks to effect maximum efficient use of transportation facilities and release of additional equipment for service to the East Coast. Consumers continue to place petroleum orders with their usual suppliers, but the industry through loans, sales, purchases, and exchanges among individual firms fills orders from the terminal nearest the consumer. Terminals include storage plants supplied with petroleum products by pipe line, river barge, or lake tanker, but not bulk distributing stations or refineries.

Gasoline demand has steadily increased in recent weeks while fuel oil requirements have eased somewhat. Taxable gasoline sales in the Seventh District states are from 10 to 20 per cent below a year ago. Total production of fuel oil continues above gasoline production. Refiners and marketers are having difficulty in meeting third grade gasoline demands of farmers for use in motorized farm equipment. The Petroleum Administrator for War has now authorized Mid-West refiners to increase their yields of motor gasoline to aid farmers. Flood waters caused a break in the newly completed "Big Inch" pipe line seriously interrupting for more than a week in May the movement of vital Southwestern petroleum through the Middle West to the East Coast.

While holding out no immediate relief from tire rationing, Rubber Director Jeffers recently reported improvement in the rubber outlook. An estimated 12 million new passenger car tires, 5 million to be made from synthetic rubber, will be available for essential civilian use during 1943. All plants in the current synthetic rubber production program are expected to operate by the close of the year.

The high level of demand for paper continues unabated, but pulp, manpower, and transportation problems are making deliveries increasingly difficult. The



Federal Government's unprecedented purchases of paper of widely differing varieties are strongly influencing the paper markets. No further restrictions on the use of newsprint and print paper by newspapers and magazines are expected in the immediate future.

Construction contracts awarded in the Seventh District during the first four months of 1943 were valued at 163 million dollars or about half the volume for the same period in 1942. Single family units for owner occupancy are virtually excluded from current construction. Nonresidential building thus far this year has experienced almost as sharp a curtailment as residential building. The ratio of private capital to public funds in the financing of construction contracts is becoming increasingly smaller, private funds now accounting for only one-fifth of total contract valuations.

Furniture manufacturers now openly state that on the whole orders booked no longer reflect demand for furniture but rather only the extent to which firms are willing to commit themselves on future shipping schedules. At the end of April unfilled orders held by Seventh District manufacturers were about 75 per cent larger than at the same date last year. Difficulties in procuring materials and manpower limit the industry's production and shipment schedules.

#### BUYING WAVE CONTINUES

Seventh District department store sales surged upward further during April reflecting Easter buying, lagged somewhat during the first half of May mainly because of a normal post-Easter slump and unfavorable weather, but at the close of May were 15 per cent higher than a year ago. Indianapolis department stores made the greatest gains in May. The long buying season which has occurred already this year may retard sales of late summer and early fall wear.

Fewer traditional spring sales were reported this year. Retailers are confronted with an abundance of buyers but increasingly limited supplies of goods for sale. The buying wave which began early in February has depleted stocks seriously and persistent efforts are being

made to replace many goods with substitutes or new lines. April was marked by substantial increases in sales of jewelry, infants' wear, dresses, furs, boys' clothing, and luggage as compared with a year ago.

The current food situation has been affected somewhat by some new price ceilings, some extensions of rationing, and adjustments in ration values. To avoid a recurrence of the April month-end deluge of buyers to use canned goods ration stamps before the expiration date, the OPA announced that May stamps would be acceptable during the first week in June.

#### AGRICULTURE—TOO MUCH WATER

Flood disaster over-shadowed all other events in the district's agriculture during May. Heavy rains the first three weeks of the month more than doubled the usual May precipitations. Because rain came nearly every day, rivers were unable to carry off the burden. Coming just at planting time for corn, the farmers in the affected areas were set back weeks by the damage and delay. Crops already in, such as wheat and oats suffered some damage, as did truck crops, especially tomatoes. The delay in corn planting is of course serious not only because it postpones soybean planting and other farm operations, but also because of the increased danger of frost before the crop can mature in the fall. Hay crops likewise were heavily damaged. Flooded fields were reported for all the states in the District.

The worst affected areas appear to have been in Southern Illinois, Indiana, and Missouri. Distressed areas were found particularly along the Wabash and White Rivers in Indiana, along the Mississippi, Illinois, Sangamon and Kaskaskia Rivers in Illinois and the Missouri in that state. Residents of exposed cities such as Terre Haute, Indiana and Beardstown, Illinois were driven from their homes. Some levees were broken, and in other regions were held against the swelling tide only by the heroic efforts of crews recruited from every available source.

In Illinois alone, according to preliminary estimates of county farm advisers, nearly 1,500,000 acres of cropland were flooded. In the Seventh District part of Illinois the hardest hit counties in terms of crop acres flooded apparently were Vermilion, Macon, McLean, Tazewell and Mason. At least 2,250 homes were estimated to have been damaged. Nearly 500,000 bushels of stored feed were damaged.

Areas blighted by the disaster face a heavy task in reconstruction. Farm machinery, buildings, fencing, must be repaired or replaced. The Red Cross, Army, state and Federal agencies are joining in speeding up the reconstruction. The size of the task will be more clearly known after a survey of the distressed areas.

### Statistics Available

Tables of monthly statistics covering economic activities in the Seventh Federal Reserve District are available upon request. Address inquiries to Research and Statistics Dept., Federal Reserve Bank of Chicago, Post Office Box 834, Chicago, Ill.

## General Business and Financial Conditions in the United States

(Summarized by the Board of Governors of the Federal Reserve System)

**I**NDUSTRIAL activity in April and the early part of May increased somewhat further, and retail trade was maintained in large volume.

### INDUSTRIAL PRODUCTION

The Board's index of total industrial output rose slightly in April, reflecting further increases in activity in war industries, while output in most other lines showed little change.

Production of armaments in the machinery and transportation equipment industries rose to new high levels. Activity at steel mills increased somewhat further. Lumber production showed the usual seasonal rise in April and was at a level about 10 per cent less than a year ago, when problems of maintaining an adequate labor supply in the industry began to develop. In the cement industry, where production usually advances sharply during the spring months, production has shown little change this year, reflecting chiefly the restricted volume of current construction activity.

Total output of manufactured foods in April continued below the seasonally adjusted peak level reached at the end of last year. Meatpacking and flour production showed decreases in April, while output of dairy products and other manufactured food products was maintained. Volume of output in chemical plants continued to gain. Production of other non-durable manufactures showed little change.

There was a decline in bituminous coal production in the last week of April, following the breaking off of negotiations for a new wage contract, but output increased in the early part of May. Production of coal in March had been at an exceptionally high level. Stocks on May 1 were considerably higher than a year ago and for bituminous coal were estimated to be equivalent to 55 days' supply for industrial purposes. In May the Government took over the bituminous coal mines.

Value of construction contracts awarded declined in April, reflecting reductions in contracts for Federal work, according to the F. W. Dodge Corporation. Total residential awards in March and April were at the lowest levels for these months in a number of years.

### DISTRIBUTION

Sales at department and variety stores increased in April, but the rise was less than usually occurs when Easter falls late in the month. Mail-order sales, principally to persons in small towns and rural areas, showed about the usual seasonal rise. Value of sales in April continued at a level substantially higher than a year ago but, with prices higher, the physical volume of goods sold was probably about the same as in the corresponding period last year.

Carloadings of revenue freight were maintained in large volume in April and the first week of May. Ore shipments showed a seasonal rise beginning in the last half of April, a month later than in 1942 when the movement was unusually early.

### COMMODITY PRICES

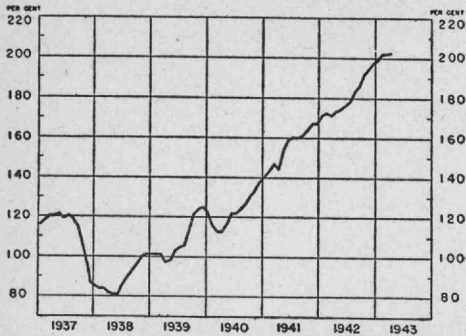
Wholesale prices of most commodities showed little change from the middle of April to the middle of May. Retail food prices continued to advance sharply in the latter part of March and the early part of April and the indexes showed increases of 6 per cent as compared with January. Retail prices of most other items in the cost of living showed smaller increases in that period. Plans for more effective enforcement of price ceilings have been announced.

### BANK CREDIT

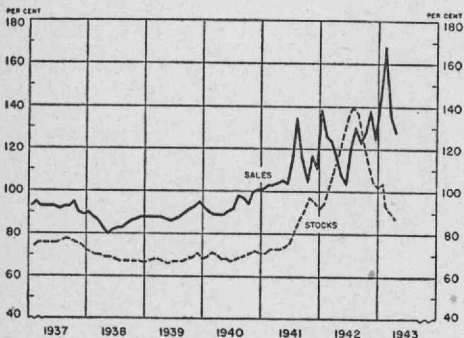
During May, as the Treasury made disbursements out of war loan accounts, which had been built up during the recent drive, there was a growth of bank deposits subject to reserve requirements and a decrease in member bank excess reserves. Continued withdrawals of currency also reduced bank reserves. Nevertheless, the reserves of member banks were sufficient to enable them to make substantial repurchases of bills which had been sold to the Reserve Banks under option. In addition, the Federal Reserve System sold some bonds in response to a market demand.

Government security holdings at reporting member banks in 101 leading cities increased by 4.3 billion dollars in the four weeks ended May 12. These increases reflected purchases of new issues during the War Loan drive, as well as substantial market purchases.

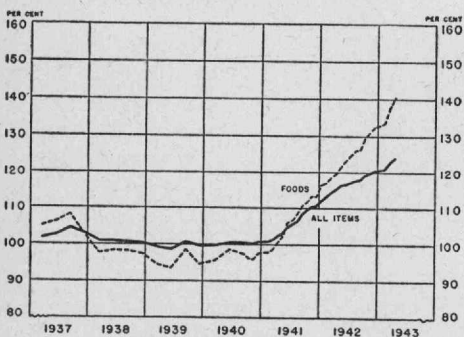
In New York City, loans to brokers and dealers for purchasing or carrying securities increased by 860 million dollars during the three weeks of the War Loan drive, and subsequently declined in the first three weeks of May; these changes reflected almost entirely activity in loans for purchasing or carrying Government securities, which on May 19 amounted to 580 million dollars of the total 1,020 million dollars outstanding; other loans to brokers and dealers by New York City banks rose by 90 million dollars from the end of March to May 19.



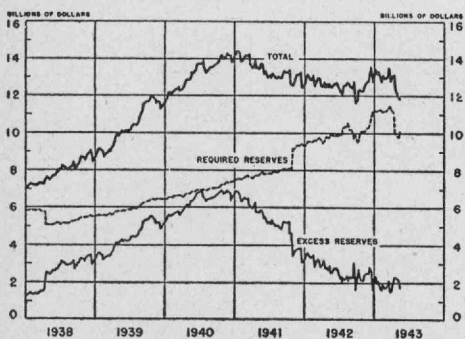
Index of Physical Volume of Industrial Production, Adjusted for Seasonal Variation (1935-39 average=100 per cent)



Indexes of Value of Department Store Sales and Stocks, Adjusted for Seasonal Variation (1923-25 average=100 per cent)



Indexes of the Cost of Living as Compiled by Bureau of Labor Statistics (April figures are estimates of the Board of Governors; 1935-39 average=100 per cent)



Wednesday Figures of Total Member Bank Reserve Balances at Federal Reserve Banks, with Estimates of Required and Excess Reserves (Latest figures are for May 12)



**SEVENTH FEDERAL**



**RESERVE DISTRICT**

