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## CHANGES IN DEPOSIT OWNERSHIP

At the time of the July 31 deposit ownership survey, demand deposits of individuals, partnerships, and corporations\* were the largest on record at reporting banks in the Fourth District.

In the case of the eight largest banks for which continuous data are available, demand deposits were 12½% higher than in mid-1943. At 23 other large banks in the \$10-\$100 million range the three-year gain was 27%. With respect to banks below the \$10 million mark, the increases were even greater.

This inverse correlation between deposit growth and size of bank is largely a function of uneven distribution of the increment among the various groups of depositors. Not all types of depositors expanded their cash assets at the same rate during the past three years. In some lines of economic activity, demand deposits actually show a net decline with the result that banks which are patronized largely by such enterprises experienced relatively little deposit growth in recent years. On the other hand, some classes of depositors increased their cash holdings by nearly 60%. The composition of the demand deposit structure, in terms of the economic activity of the deposit owners, has been a major determinant of the rate of increase of any given bank's total deposits.

At the foot of this page, the ten major classifications of depositors are divided into two groups in terms of the rate of expansion since July 1943. In the chart on the left are the five groups of depositors whose balances expanded somewhere between 30% and 60% during the past three years.

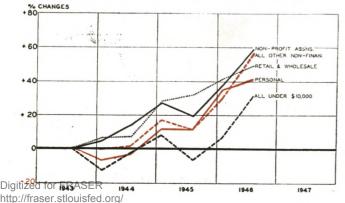
Recent Increases What may be even more significant than the rapid rate of increase, is the fact that in nearly every instance most of the expansion took place within the past twelve months. This is notably true in the case of "all other" non-financial business, personal accounts of over \$10,000, and all unclassified (under \$10,000) accounts. As a matter of fact the last mentioned showed a net decline for the first two years of the period. The larger personal accounts similarly were up only ten percent by July 1945, but rose another 30% during the twelve months just ended.

The group of depositors whose cash assets expanded at the most uniform rate was the retail and wholesale trade section. There the growth quite consistently adhered to a 16% per annum rate or 49% for the entire period. The nonprofit association group shows an increase of 20% per annum but with somewhat wider fluctuations.

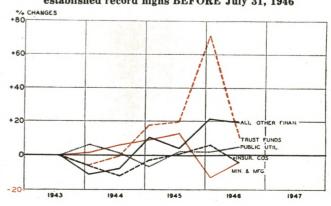
\* Hereinafter referred to simply as demand deposits.

#### FLUCTUATIONS IN DEMAND DEPOSITS AT EIGHT LARGEST BANKS

Deposits owned by the five groups on this chart were the highest on record on the July 31, 1946 survey date



Deposits owned by the five groups on this chart established record highs BEFORE July 31, 1946



Federal Reserve Bank of St. Louis

The chart on the right side of the preceeding page presents quite a different picture. A theoretical bank whose deposits were payable entirely to enterprises of the kind indicated on that chart would probably have experienced some shrinkage in total resources if not over the entire three years, than at least during the past twelve months.

Cash holdings of insurance companies show a net decline for the period. Trust funds after a temporary spurt are up only 9% for the three years, and "all other" financial firms increased their demand balances only 20%, and most of that increase occurred after July 1945.

Cash assets of public utilities were remarkably stable throughout the interval. Mining and manufacturing accounts, whose dollar volume bulks large at metropolitan banks grew steadily throughout most of the war period but contracted very sharply during the most acute phase of reconversion. An interim survey conducted by this bank disclosed that manufacturers' balances were lower on April 30 than on January 31, indicating that all of the postwar expansion (to July 31) in this type of deposit, was confined to the May-June-July quarter-year. There is some evidence that the uptrend extended beyond the latest survey date.

Of the \$209,100,000, or 12½%, increase in demand deposits at the eight largest banks, well over a third —\$85,800,000—might be said to have been lodged in the hands of unclassified depositors, such as small businesses, personal or professional accounts, and other miscellaneous deposits. Another \$51,500,000 had accumulated in the over-\$10,000 personal accounts, and some \$44,100,000 had accrued to the credit of retail and wholesale establishments. The remainer was either dispersed over the other five deposit groups, or offset by a \$36,800,000 net decline in mining and manufacturing deposits.

In reality, there were many intervening steps in this gradual transfer of funds or in the drift toward certain economic classes of depositors. Some of the accumulations might be traced to sources outside the District, or were transferred from other banks within the District. But those considerations do not undermine the general thesis that in a dynamic economic society funds are constantly shifting from one owner to another, as the "internal balance of payments" varies between and among different economic groups.

This historical analysis of the trends of the past three years, including the first twelve months of reconversion may shed some light, not necessarily with regard to future fluctuations of total deposits, but possibly with regard to the kinds of deposits that are likely to show a relative gain in the next six months or longer. If those beneficiary groups could be identified, the future trend of deposits of any one type of bank could be estimated with greater assurance.

Tables will be found elsewhere on these pages illustrating the wide variations in deposit structure among size groups of banks. In the largest banks, deposits of mining and manufacturing establishments constitute 43% of total demand deposits. In the next largest banks, industrial accounts represent only about 23% of the aggregate, while the unclassified (under \$10,000) deposits make up over 32%. In banks of the \$1-\$10 million class, 30.5% of total demand deposits are of the miscellaneous (unclassified) type. Manufacturing deposits are also of some consequence but so are commercial enterprises' balances and deposits payable to individuals, especially nonfarm personal accounts.

If in the coming months there should develop a pronounced movement of funds out of the hands of individuals and retail establishments, and into the possession of manufacturing enterprises, the smaller banks will stand to lose deposits, at least relatively, to the large banks. Conversely, if the trends of the past twelve months should continue, the smaller banks' deposits will grow more rapidly than those of the largest banks.

Outlook for Future

Changes

Gods will move into consumers hands over the coming months. But the proportion in which such transactions will be financed by credit rather than by cash is also an important element. The outlook is further complicated by possible changes in the price level either upward or downward, by the consuming public's reaction to such changes, by contemporary investment policies of non-bank financial institutions and by a host of other influences of lesser import.

The recent re-expansion of manufacturers' balances is the result of more profitable (or less unprofitable) operations, of the sale of securities for new capital, and last but not least, of a record increase in borrowings

(Continued on Back Cover)

TWENTY-THREE LARGE BANKS

## Changes in Demand Deposits—Three Years Ended July 31, 1946

	Percentage	Dollar	Changes
Deposit Classification	Changes	Increases	Decreases
Nonprofit Organizations.	+59.6%	\$14,600,000	
Other Nonfinancial	+55.2%	26,800,000	
Retail & Wholesale Trade	+48.8%	44,100,000	
Personal		51,500,000	
All Accounts Under \$10,00	0 + 31.7%	85,800,000	
All Other Financial	+19.6%	13,700,000	
Trust Funds of Banks	+9.1%	6,000,000	
Public Utilities	+ 4.2%	4,300,000	
Insurance Companies			\$ 900,000
Mining & Manufacturing	-4.3%		36,800,000

EIGHT LARGEST BANKS

Total Demand Deposits.. +12.5% \$209,100,000

	Percentage		Changes
Deposit Classification	Changes	Increases	Decreases
Other Nonfinancial	+75.4%	\$15,200,000	
Personal		41,900,000	
All Accounts Under \$10.		109,300,000	
Retail & Wholesale Trad		31,500,000	
Nonprofit Organizations		7,700,000	
Public Utilities	+38.6%	15,500,000	
Insurance Companies	+32.6%	5,000,000	
Trust Funds of Banks.		4,400,000	
All Other Financial		700,000	
Mining & Manufacturin			\$46,700,00

Total Demand Deposits.. +27.0% \$184,500,000

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Federal Reserve Bank of St. Louis

# **GRAY IRON FOUNDRIES**

The ability of American industry to produce adequate quantities of motor vehicles, farm machinery, railroad equipment, household appliances, plumbing fixtures, furnaces, stoves, industrial machinery, and a host of other essential commodities depends to a large degree upon the supply of castings from the gray iron casting industry. It is currently estimated that over 500 industries and branches of agriculture use gray iron castings, either in their product or as an integral part of their productive equipment.

It is probably inaccurate to refer to the collection of manufacturers that produce an infinite variety of cast iron products as an industry, since wide differences exist in the character of their operations. A part of the industry is "captive" and part of it is "jobbing." The former represents shops operated by manufacturers of motor vehicles or stoves, for example, that produce castings for their own use and incorporate them in finished products. The facility may occupy a corner of the manufacturing establishment and be treated as a department or it may be a separate company or subsidiary created to handle this phase of the general operations. The output of the "captive" foundry may be consumed entirely by the manufacturer owning it and the rate of operation geared to established needs. Other "captive" foundries produce for the open market on a contract basis when excess capacity is avilable.

"Jobbing" foundries, on the other hand, are separate companies which produce castings for buyers on a contract basis. However, this type of foundry exists in many different forms. Some are known as "production" shops. That is, output is limited to a few items for a small number of customers, but on a large tonnage and long term basis. Other shops produce a wide variety of castings for many customers and for relatively small orders. In nearly all cases, there is a high degree of specialization. Foundries may become attached to the machine tool trade, automotive industry, railroad, farm equipment, steel industry, etc., and tend to be identified with a particular industry rather than with the gray iron foundry industry as such.

Differences as to the amount of work performed on the castings as between shops should also be noted. Some merely pour the castings and ship them after they have been cleaned, chipped and rough ground. Other foundries have quite elaborate machine shops in which the castings may be ground, milled, drilled, or shaped to the required finished dimensions.

According to the Census of Manufactures, 1235 establishments were engaged in the production of gray iron and semi-steel castings, and cast iron pipe and fittings in the United States and employed 75,000 wage earners in 1939. The total value of product was \$275 million out of which wage earners received \$88 million. In addition, about \$113 million of gray iron and semi-steel castings were made as secondary products in other industries. Ohio and Pennsylvania together had 256 establishments with 17,500 wage earners whose value of product amounted to \$70.5

million or 26 percent of the national total.

The gray iron and semi-steel casting manufacturers produced about six million tons of castings in 1939. Of this total, Ohio and Pennsylvania accounted for 28.5 percent. About one-third of all castings were consumed in the producing plants and this proportion may be taken as a measure of the importance of "captive" foundries to the whole industry.

History The first iron works in the United States of any historical importance was built in 1643 at Lynn, Massachusetts and consisted of a furnace, forge, and slitting mill. It produced kettles, pots and other hollow ware cast directly from the furnaces as was then the English custom. Iron was also run into sows, or pigs, which were later heated and hammered into wrought bars. Pigs were also exported to England.

Foundries, trip hammer forges, furnaces, and slitting mills soon sprang up in considerable number in the colonies, and after the Revolution, multiplied with great rapidity. The early foundries did custom work for other manufacturers but produced chiefly cooking utensils, domestic articles, sugar and potash kettles. By about 1805, the domestic demand for hollow ware was completely met by United States production, and the industry was approaching an era of great expansion due to the part it would play in the manufacture of steam engines. Before long, most foundries for heavy castings were connected with engine works. Specialization increased and foundries exclusively produced stove plates, plow iron, etc.

The first iron foundry west of the Alleghenies was erected in Pittsburgh in 1804 and an engine works started two years later. The census of 1820 found engine builders in Pittsburgh, Steubenville, and Cincinnati. During the next decade, at least six foundries in Pittsburgh were making 20-30 steam engines annually. Castings up to four tons in weight were poured in Pittsburgh in 1828, and a few years later in Wheeling, shafts and bed-plates for engines were cast weighting up to 30-40 tons.

The first iron furnace in Ohio was completed in 1804 and was located on Yellow Creek a short distance above its junction with the Mahoning River. Two years later another furnace was built nearby on the present site of the city of Struthers. This furnace yielded about two and one-half tons of metal a day which was run into molds for bake-ovens, kettles, stoves, flat irons, andirons and other items needed by a frontier society. Surplus iron was made into pigs and exported to the Pittsburgh market.

The Hanging Rock region, which includes Greenup, Boyd, Carter, and Lawrence counties in Kentucky, and Lawrence, Jackson, Gallia, and Vinton counties as well as part of Scioto county in Ohio, was an early famous iron producing area dating from about 1820. The first foundry in Portsmouth was completed in 1830. It produced the castings used in the rolling mill that was built there in 1832.

The beginning of iron industries in the counties along Lake Erie probably began about 1825. Bog iron, which was found in swales and swamps along the ridge marking an ancient shore of the lake, was used. Lack of wood for charcoal had all but stopped production in this area by the middle of the century.

Conversion from Charcoal to assume importance when raw coal was used successfully as a blast furnace fuel at Lowell in 1846 and charcoal furnaces were converted rapidly to this fuel. The iron industry in Youngstown dates from about 1835.

The manufacture of iron stoves and furnaces, after their adaptation to coal, became a rapidly expanding iron founding business between 1830-1860. Cincinnati and Pittsburgh became important centers for their manufacture and in 1850, foundries in these towns produced about 70,000 stoves used for both cooking and heating. These two cities also became large producers of hollow cast iron wheels for the spreading railroad network.

In addition to iron ware made since the beginning of the industry in this country, new products were developed. At the time of the Civil War such items as bath tubs, builders' hardware, cast iron railings, fountains, and lawn ornaments were turned out. Growth of cities and development of water and gas works led to a demand for cast iron pipes, hydrants, and lamp posts. Foundries were also producing many of the components of a lusty engine-manufacturing business since most large and small parts were made of cast iron as metal finishing tools had not as yet been extensively developed. Cannon, press screws, and rolls for sugar and iron works were important products.

Better foundry irons also were developed. During the 1870's there was a strong prejudice in favor of Scotch pig for fine castings because of its high fluidity, ability to take up scrap, and small shrinkage in the mold. Mahoning Valley furnace men developed an "American-Scotch" pig iron by using a blend of local black-band ores and Lake Superior ores and by the end of the 1880's domestic sources were supplying nearly all of the high grade foundry irons needed here.

Up to 1885, pig iron was sold on its reputation, brand name, and fracture. No one knew exactly why one pig iron was better than another. In that year an English professor discovered that by varying silicon, the grayness and hardness of a casting could be changed at will. The same year, W. J. Keep discovered that the measure of shrinkage of a test bar was a mechanical analysis to determine if more or less silicon was needed to keep silicon and shrinkage uniform. Today, blast furnaces sell iron by analysis, and the iron founder by proper mixing of different kinds of pig iron and scrap can produce the exact quality needed for his product.

By the end of the 19th century, many machines were in use to lighten the burden of foundrymen.

Molding machines were used in 1892; tumbling barrels and sand blast machines were advertised in 1893; mechanical sand mixers, temperers, sand conveyors, pneumatic hammers, and chippers were also avaiable.

According to 1939 Census data Ohio Ohio Ranks was the leading state in the manufac-First ture of gray iron castings. It ranked first by a wide margin in the number of establishments, number of wage earners, and value of product. Although Pennsylvania had the second largest number of establishments it was outranked by Michigan and Illinois in the value of product and number of wage earners. Alabama produced nearly 50 percent of all cast iron pipe and fittings and was the home of onethird of the manufacturers of these items. In terms of value of product, Pennsylvania ranked as the third largest pipe producing state (with an output oneseventh that of Alabama) and Ohio was a close fourth. The following table illustrates the importance of these industries in the Fourth District. Data for West Virginia are not available, and Kentucky which had only nine foundries with a value of product of less than a million dollars is not show separately.

#### Recent Data on the Gray Iron and Semi-Steel Castings Industry

	United States	Ohio	Pennsylvania
Number of establishments	1,161	122	119
Average number of wage earners	58,428	10,697	4,837
Manufacturing wages	\$ 70,750,000	\$14,350,000	\$ 5,500,000
Value of product	\$209,800,000	\$43,500,000	\$19,500,000
Value added by manufacture	\$130,750,000	\$26,600,000	\$10,500,000

### Cast Iron Pipe and Fittings

	United States	Ohio	Pennsylvania
Number of establishments	74	5	10
Average number of wage earners.	16,488	652	1,334
Manufacturing wages	\$ 17,500,000	\$ 850,000	\$ 1,500,000
Value of product	\$ 65,000,000	\$ 3,500,000	\$ 4,000,000
Value added by manufacture	\$ 37,000,000	\$ 2,250,000	\$ 2,300,000

Source: Census of Manufactures, 1939.

According to these data, the average Ohio gray iron foundry employed 88 wage earners and the average value of product was \$356,000 per establishment, or more than twice the size of Pennsylvania foundries with 41 wage earners and value of product of about \$164,000 per establishment.

There is some evidence that with respect to gray iron foundries the Census of Manufactures of 1939 did not completely cover the industry. Penton's Foundry List, published by the Penton Publishing Company, Cleveland, lists 3054 gray iron foundries in 1939. It further shows that 380 were located in Pennsylvania, making it the leading foundry state, and Ohio second with 290 foundries. In 1945, Penton's Foundry List shows 2879 foundries in the United States with 327 and 279 foundries in Pennsylvania and Ohio respectively.

During the war, each gray iron foundry in the United States had to apply to the War Production Board for its allotment of pig iron. On the basis of the monthly and annual reports of these foundries, the Bureau of the Census in its 1945 report for gray iron foundries, lists 2490 foundries. It is hardly conceivable that the number could have increased from 1235 in 1939 to 2490 in 1945, a figure which is only a few less than Penton's list which may include a small number of inactive establishments.

While data with respect to the size of individual foundries are not available for 1939, the Bureau of the Census has recently released a study of the gray iron castings industry (including pipe) for the year 1945 in its Facts for Industry series, which deals with this aspect. The data are summarized in the accompanying table.

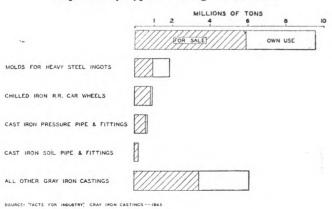
#### Number of Gray Iron Foundries by Size of Shipments—1945

	FOUNDRIES		SHIPMI	ENTS
Size of Annual	Number Of Total		Short	Percent
Shipments—Tons			Tons	of Total
0 to 999	1,272	51.1	470,000	5.0
1,000 to 2,499	587	23.6	925,000	9.6
2,500 to 4,999	296	11.9	1,040,000	10.8
5,000 to 19,999	244	9.8	2,290,000	23.9
20,000 and over	91	3.6	4,855,000	50.7
Total	2,490	100.0	9,580,000	100.0

The dominance of the large foundry in the industry is noteworthy. The 91 largest establishments, or four percent of the foundries, shipped 51 percent of total annual tonnage. Only 13 percent of the foundries shipped more than about 400 tons of iron per month (5,000 tons annually) yet this small number accounted for 75 percent of total tonnage. On the other hand, 75 percent of the foundries shipped less than 200 tons of castings per month and produced about 15 percent of total annual tonnage.

On the basis of the number of reported foundries and shipments in 1945, District foundries were larger than those located elsewhere by a wide margin. The average foundry outside of the District had annual shipments of about 3,400 tons whereas Pennsylvania and Ohio establishments shipped about 5,800 and 5,300 tons respectively. The heavy concentration in

#### Shipments by Type of Casting-U. S .- 1945



the District of producers of large tonnage items such as steel ingot molds and railroad car-wheels accounts to a large degree for these larger shipments.

**Diversification**of **Product**The product of gray iron foundries is extremely diversified. Illustrative of this is the fact that the Bureau of

Census provides data for only four types of castings which account for about one-third of shipments in 1945. The accompanying chart depicts the relative importance of each.

It is significant that in 1945 two-thirds of total shipments or about six million tons are unclassified castings. These would include castings for motor vehicles, railroads (other than car-wheels), ordnance, farm machinery, industrial equipment and machinery, household appliances, building equipment, etc.

The steel mills are apparently the largest customers of the foundry industry since about two million tons of gray iron was shipped in the form of molds for heavy steel ingots. This tonnage was produced by only 31 foundries, of which 20 were located in Ohio, Pennsylvania, and West Virginia. Two-thirds of the tonnage of this item originated in these states. Chilled iron railroad car-wheels are the second ranking product with shipments amounting to about 900,000 tons. Nine foundries in Fourth District states specialize in this product and cast 15 percent of the car-wheels produced. Cast iron pressure pipe and cast iron soil pipe are the next largest consumers of gray iron and together accounted for another 800,000 tons. There are 87 foundries in the United States producing these items with 14 of them located in Pennsylvania and Ohio. Alabama shipped more than 50 percent of the cast iron pipe manufactured.

Production of gray iron castings expanded considerably during the war as compared to prewar years. The accompanying table shows average monthly shipments of gray iron castings including cast iron pressure pipe and fittings and cast iron soil pipe and fittings for selected years. The amounts shown for 1937 and 1939 are actual production since shipping data are not available.

Year	Average Monthly Shipments (tons)	% of Shipments for Sale
1937	. 646,000	71.8%
1939	. 593,000	68.4
1943		N.A.
1944		63.0
1945		61.8
1946 January	706,000	63.2
February	541,000	68.1
March	796,000	63.5
April		61.8
May		60.0
June		59.3
July		58.6

Peak production was attained in 1944 when monthly shipments averaged 816,000 tons or 27 percent above the 1939 level. The recession in 1945 was nominal in view of the termination of war contracts and the readjustment to peace-time production by the major

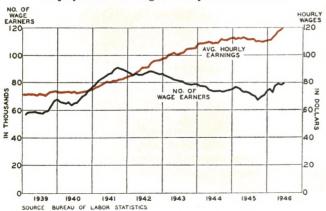
customers of the iron foundry industry. The erratic output in 1946 fully reflects the disturbed industrial picture and the interruption in the flow of the prime foundry raw materials, pig iron and coke. Two-thirds of the July increase in shipments was due to a sharp expansion in the movement of molds for heavy steel ingots.

Also shown in the table is the percent-Integration age of shipments for sale. The balance of Foundries of the shipments are for use by the same company, or an affiliate, subsidiary, or parent company. The trend is steadily downward. In 1937, about 72 percent of all gray iron castings were for sale and by 1939, the proportion had declined to 68.5 percent. Data from 1939 through 1943 have not been published, but in 1944, only 63 percent of shipments were for sale or a decrease of nearly nine percent from Since that date, the proportion for sale has continued to drop to reach the low level of 58.6 percent in July 1946, or a decline of 18 percent for the 9 year period. The sharp rise in February coincides with the steel strike when production of molds for steel ingots almost ceased.

This trend implies that integration of foundries with their customers is proceeding at a relatively rapid rate. Foundries may be acquired by users of gray iron castings for a variety of reasons, such as a desire to have a guaranteed source of supply, better quality control of foundry operations, and to reduce costs. The acquisition of foundries by large buyers of castings removes an increasing proportion of capacity from the open market and intensifies the scramble of small buyers of castings for the available output of a diminishing source of supply. Expansion and construction of "captive" foundries since 1939 has also resulted in a smaller proportion of total output being available for sale on the open market. It may well be that part of the decrease in 1946 of the proportion of castings sold in the open market is due to the intense competition for limited supplies of pig iron with the "captive" foundry being more successful in this struggle.

Fourth District States in 1945 showed wide variations in the proportion of foundry shipments that were





for sale: West Virginia 92 percent, Ohio 75 percent, Pennsylvania 51 percent, and Kentucky 31 percent. Integration, or operation of "captive" foundries, has proceeded further in Kentucky and Pennsylvania than in West Virginia and Ohio. These four states contained in that year 27 percent of the United States monthly capacity for gray iron foundry production and made about one-third of the annual shipments. Kentucky and West Virginia together have about one percent of the nation's gray iron foundry capacity.

Employment and Wages

The gray iron and semi-steel casting industry, exclusive of pipe and fitting manufacturers, employed 58,400

wage earners in 1939. About 27 percent of this number were employed in Ohio and Pennsylvania foundries. According to data compiled by the Bureau of Labor Statistics, average hourly earnings were 69.8 cents in that year. The accompanying chart depicts the course of employment and average hourly earnings by months from 1939 to date.

Peak employment was reached in September 1941 when 91,400 workers were on the payrolls and hourly earnings had risen to 80 cents per hour. Employment had thus risen about 57 percent and wages 15 percent in less than two years. The number of wage earners steadily declined during the war years although wage rates continued upward. The character of iron foundry work, and the opportunities in other war industries at relatively higher rates of pay and better draft status, together with loss of men to the armed forces early in the war when the need for large tonnages of gray iron was not fully recognized, are factors that contributed to the loss of foundry workers. By the middle of 1944, the number of workers had declined to about 73,000 with wages at \$1.07 per hour. Despite this loss of manpower, foundry shipments rose to record levels in that year. The decline in the number of workers in the month following V-J Day was only nominal and the trend has turned upward to reach a level of 78,500 in July 1946 with average hourly earnings of \$1.20. Postwar employment is thus 34 percent above 1939 and average hourly wage rates are 71 percent greater. Inability to obtain sufficient quantities of raw materials for capacity operation and a reluctance on the part of new employees to enter the trade are the principal factors holding employment at present levels.

On the basis of prewar (1939) percentage of employment, Ohio and Pennsylvania foundries are now employing about 21,000 foundry workers. Subsequently, however, these two states bettered their prewar proportion of total business to the extent of perhaps three or four percent, or several thousand workers.

Costs
On the basis of the 1939 Census of Manufactures, it is possible to make a rough allocation of the principal production costs for gray iron and semi-steel foundries. These may be broken down as follows:

Total salaries and wages		52.8%
Materials and supplies		
Fuel		
Purchased electrical energy		
Contract work	٠.	.4%
Total Direct Costs		100 007

Information is not given as to overhead and engineering expenses, depreciation, and selling costs. On the basis of available information, wages and salaries account for slightly more than half of all costs and materials and supplies for about 40 percent. Fuel costs amount to less than 5 percent. Since 1939, sharp changes have taken place in these costs. The percentage increase of the principal expenses of foundries are given below:

	Percentage	Increases
	July 1939	July 1941
F I	to July 1946	to
Expense Item		
Hourly wages (B.L.S.)	65%	$\frac{51\%}{14\%}$
Pig Iron, No. 2 foundry del. Philadelphia Heavy melting steel scrap, Pittsburgh.		16% -0-

It is evident that very substantial cost increases took place in foundry operation from 1939 to 1941, and costs continued their upward course after foundry selling prices were frozen early in 1941. Price adjustments were exceedingly hard to obtain, and only after presenting O.P.A. with exact and detailed cost information. The price agency, in one study of the pricing problems of the industry, estimated that only 25 percent of the foundries had any kind of cost system (good, bad, or indifferent). As a result of these conditions—rising costs and inability to prepare acceptable price relief petitions—many foundries refused to accept business from old customers during the war and reconversion periods.

They found it possible, however, to accept new business and quote prices that were profitable on the basis of a formula devised by O.P.A. to price castings never before made by a specific foundry. As a consequence, foundries have engaged in considerable swapping of customers and their patterns to take advantage of formulae prices. While this practice has resulted in rather substantial price increases to customers, it has enabled many foundries to continue in business on a profitable basis. However, it has disrupted normal trade relations and imposed severe hardship on customers who have not been able in all cases to pass the increased costs on to the consumer. In other cases, long established manufacturers have found it difficult to place orders with other foundries after their business has been declined as unprofitable by their customary sources of supply.

Technological Developments

Basically, the method of producing iron castings is the same today as it was 75 years ago. The raw ma-

terials—pig iron and scrap—are melted in a furnace and the molten metal poured into prepared sand molds to give the necessary form or shape. After cooling, the sand and excess metal are knocked off, machining operations performed if necessary, and the casting is ready for use. Vast changes, however, have taken place to refine this process so that a better product could be produced at a lower cost, under immensely improved working conditions.

About 30 years ago, cast iron was considered a low priced material to be used in goods of inferior quality. "It was regarded as undependable except where strength went with weight, stress resistance meant bulk, and appearance was entirely irrelevant . . . knowledge of alloys was meager. Microscopy, refinement in metal control, determination of properties by regulation of inherent constituents such as silicon and carbon, were practically unknown. Today gray iron has obtained a new birth. Strength properties are obtainable which carry over into a fringe area previously dominated by cast or rolled steel."\*

By far the most common type of furnace used in the District to melt gray irons is the cupola. The cupola is a straight melting unit resembling an oversize chimney. The bottom is covered with a deep bed of coke and it is charged from the top with a mixture of pig iron, scrap steel, coke, and a fluxing material, usually limestone. Molten metal is drawn off near the bottom and run into ladles which carry the metal to the molds. The cupola is cleaned out after each day's run and prepared for the next day's operation.

Other types of furnaces in use are air furnaces, largely in malleable iron foundries; electric and crucible furnaces, primarily for special and experimental work. In addition to these direct melting processes, the duplexing processes are used to some extent to obtain extra high temperatures or to obtain closer carbon control.

Recent improvements in the cupola involve better control of the air blast, its temperature and humidity, the development of mechanical charging devices, and more rapid methods of weighing and handling raw materials.

In the making of molds, steel flasks have largely displaced the wood flask. In many foundries, sand with uniform characteristics is now mechanically prepared in a central location and distributed by mechanical conveyors or belts to places in the foundry where it is needed. Molders formerly prepared their own sand according to their individual judgment in a small bin and then laboriously shoveled it into the flasks on bench or floor. Now a pull of a lever drops the properly mixed sand into the flask. Cores may also be brought to the molder on a continuous belt. Molding machines and automatic sandslingers have been steadily improved to operate faster and turn out a more uniform product.

Continuous conveyor lines are now commonly used in production shops to handle the molds. Conveyors also bring the molten metal from the cupola to the pouring line, and the metal is poured as the mold moves past. Hooded ventilators have been installed in many plants to remove the smoke and fumes after pouring.

<sup>\*</sup> Ref: Gray Cast Iron, John W. Bolton, Penton Publishing Company, Cleveland.

Dust collectors are now in common use at all places in the plant where dust is generated, such as at the shakeout machine where a large part of the sand is removed automatically and mechanically from the cooling castings. Used sand is conveyed by belts to reconditioning machines where most of it is recovered and prepared for re-use.

Conveyors are also used to remove castings to the cooling area and then conduct them to cleaning rooms for chipping, sand or shot blast, grinding or whatever process is needed for finishing. Pallets are coming into increasing use for storage, loading, and shipping of the finished product, thus eliminating expensive hand handling and crating or boxing expenses. Fork trucks have become a common sight on many loading and shipping docks.

Better work and more stable labor relations have resulted where these improved processes have been adopted. Every effort has been made in progressive foundries to lighten the physical labor and make the shops cleaner and more healthful places of employment. Better lighting has also contributed its share towards improved quality and safer working conditions.

Much of the mechanization accomplished during the war was the result of the acute manpower shortage that existed throughout the industry. Machines and conveyors took the place of hard-to-get manpower. Competition for labor from other industries also has spurred mechanization and modernization of foundries to make them more attractive and easier workshops. The union's slogan while campaigning for higher wages during the war was that the "work was hot, heavy, dirty, dangerous and underpaid." The slogan has stuck in the minds of many job seekers, making labor recruitment difficult under present high employment conditions, despite the tremendous improvements accomplished and the high wage rates now being paid.

Mechanization with continuous conveyor lines is not practical, however, for the small jobbing shops that make a few of this item and a dozen of that. Where a foundry pours less than 20 tons of metal a day, it is doubtless more economical to stick to the old method of pouring molds on the floor and to use a minimum of equipment. Unfortunately, more than half the gray iron foundries fall in this category. Shops that make large castings such as machine tool bases that may weigh up to 20-30 tons each must also do much of their work on the floor.

Continuous melting with continuous molding, pouring, shakeout, and sand preparation can achieve substantial savings in unit costs on large job operations; but it also requires long runs on given castings, and requires careful planning and supervision on the part of management. Conveyors and automatic material handling equipment are relatively expensive to install and operating costs are substantial. Adequate volume is necessary to make their use practical and economical.

Problems
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Probably the most critical matter facing the gray iron foundries today is the acute shortage of pig iron. Some plants have closed and others are facing a shutdown unless more

adequate supplies of iron are forthcoming. Part of the shortage is a hangover of the protracted coal and steel strikes in the early part of 1946 which severely restricted the output of pig iron. More recently, the scrap shortages in the steel mills have caused a diversion of pig iron to the open-hearths to replace the non-existant scrap. The ear-marking of pig iron for certain industries with priorities under the housing and farm programs has also hurt producers who do not cast these items. The automobile industry, which requires about 500 pounds of gray iron castings per automobile, has felt the pinch and has protested against the diversion of iron from their supplying foundries.

Foundry grades of scrap have also become scarce although the recent action of raising the ceiling price an average of about \$4.00 per ton may improve the situation. The supply of foundry coke is tight, but should become more abundant if the present rate of coal production is maintained.

Cereal binders, needed to make the molding sand cohesive, have been in very short supply as a result of the shortage of grain during the first eight months of 1946. The promised bumper grain crops should alleviate this condition in the near future. Quality wood needed for pattern making has been almost impossible to obtain and the uncertain supply condition of this item will continue in the forseeable future.

Manpower, in view of general employment conditions, will undoubtedly continue in short supply. This shortage coupled with lack of raw materials may impose an effective ceiling on gray iron tonnage not far from present levels for some time to come. A large motor car manufacturer was recently unable to get foundries to accept large orders of short run jobs and as a consequence is planning to build its own foundry in Ohio. The decision as to which of two towns would be selected for the site was based on an advertising campaign in each community asking prospective employees to register for work. About 2,000 employees will be needed when the plant is completed in the town which "won" with the most applicants.

More mechanization may solve the problem for the larger foundries but deliveries of new equipment have been at a disappointingly slow pace.

#### INDUSTRIAL SUMMARY

(Continued from Page 9)

The Stabilization Director has ordered the Reconstruction Finance Corporation to maintain its selling price of crude rubber at  $22\frac{1}{2}$  cents a pound for the remainder of the year. This rubber was acquired in the Far East at an f.o.b. price of  $20\frac{1}{4}$  cents. The differential covered shipping and insurance costs. In June, the Far Eastern price was raised  $3\frac{1}{4}$  cents a pound, and the domestic price has remained unchanged. On the basis of an inventory policy of "first in first out" the Government is technically avoiding a loss until the low cost inventory is entirely liquidated.

# INDUSTRIAL SUMMARY

Iron and Steel The nation's steel mills in August set a new postwar record with an output of 6,900,000 net tons of ingots and steel for castings, a gain of about 300,000 tons over the previous month, and 1,160,000 tons above the same month in 1945. Steel production for the first eight months of this year totals about 40,800,000 tons as against 55,900,000 tons in the comparable period last year.

In spite of the difficulty in obtaining anything like a normal supply of scrap, steel mill activity continued during September at a rate close to 90 percent of theoretical capacity according to Magazine Steel. The District rates of operation in the latter part of September were about 98 percent at Pittsburgh, 93 at Wheeling, 91 at Cleveland, 89 at Youngstown, and 81 at Cincinnati. Continuation of these rates of activity without an augmented flow of scrap is very problematical

Probably the most important recent market factor was the decision of O.P.A. and C.P.A. to continue to hold the present level of steel scrap prices for at least six more months. This is the third time that O.P.A. has refused the scrap industry's request for a price adjustment. The only exception granted was to permit an incentive price increase on prepared grades of cast scrap ranging from \$2.50 to \$7.00 per gross ton according to grade. This type of iron replaces pig iron in foundry operations and it is hoped that these increases will bring out a larger supply. Under existing margins, many scrap dealers had refused to process their accumulations.

Steelmakers are booked for the remainder of the year on most forms of steel and some have considerable tonnage sold for early next year. Practically all are certain to have substantial carryovers into 1947. A disturbing factor in arranging rolling schedules is the unknown quantity of preference tonnage that may be allocated in the fourth quarter of the year. Priorities will probably fall on the most heavily scheduled items, the light gauges of sheets and structurals. C.P.A. has assured the industry that priority assistance will be limited to a restricted list of critical items needed for the housing program, car building, and agricultural implements.

Lake Superior iron ore shipments during August amounted to 9,775,000 tons or about a million tons less than the same month last year, according to information released by the Lake Superior Iron Ore Association. Cumulative shipments for the season to September 1 totaled 33,600,000 tons, or about 34 percent less than the 51,100,000 tons shipped to September 1, 1945.

The National Housing Agency has announced a premium payment plan to stimulate production of merchant pig iron, which is iron of foundry or malleable grade, and needed for such items as sinks, radiators, bathtubs, and cast iron soil pipe. The plan provides for payment of \$8.00 per ton to merchant pig iron producers on output in excess of 80 percent of production during the highest month, or the average

of the three highest months from January 1 to August 31, 1946, whichever is lower. A payment of \$12.00 per ton will be made on all merchant iron produced by a furnace which was closed during this period and is now reopened.

Merchant pig iron producers are also permitted to pay their suppliers of basic pig iron a \$2.00 per ton bonus to obtain needed iron and thus divert some production from steel making. The plan does not apply to steel-making pig iron nor to pig iron cast by a mill for its own use.

Rubber Passenger car tire shipments, according to the Rubber Manufacturers Association declined about one percent in July from June while production was maintained fractionally above the June level. This showing is creditable since two factories were closed the entire month due to strikes and some plants were down for inventory and vacations during the first week of the month.

The following table compares shipments this year with prior periods.

**Pneumatic Tire Shipments** 

	-In millions of units-		
Date		Truck and Bus Casings	
July, 1946	5.0	1.2	
First 7 months, 1946	35.3	8.7	
First 7 months, 1945	11.9	11.2	
First 7 months, 1941	36.3	6.7	

Source: The Rubber Manufacturers' Association.

Passenger car casing shipments this year are a million units under the 1941 level. However, in 1941 only 21.5 million tires were destined for the replacement market while in 1946 about 30.4 million units were replacements. Failure of motor car production to achieve earlier expectations has thus enabled the replacement buyer to obtain a larger share of total shipments than was possible in the first seven months of 1941. Retail passenger car tire inventories are still practically nonexistent.

The Commerce Department has estimated 1946 rubber production for the areas in the Far East and Ceylon, formerly occupied by the Japanese, at about 600,000 long tons. Production in 1947 should show an increase of at least 50 percent above this figure. This latest forcast of production in the liberated areas is about 150,000 tons greater than that predicted in

the spring of this year.

Additional supplies of crude rubber will be welcome to tire manufacturers inasmuch as the Rubber Director of the C.P.A. has estimated their requirements for GR-S, general purpose synthetic rubber, at 175,000 tons for the fourth quarter of the year, or 25,000 tons in excess of the available supply. In view of the encouraging outlook for crude rubber, some District tire manufacturers are urging an early return to a free rubber market and the development of Government policy with regard to the disposal of synthetic rubber facilities.

(See Preceding Page)

# CHANGES IN THE FEED OUTLOOK

The combined effect of excellent grain yields along with some reduction in livestock numbers has turned the feed-grain situation from one of scarcity earlier this year into one of abundance. Production of the four principal feed grains—corn, oats, barley and grain sorghums—will be at the record level of 127 million tons according to September 1 crop report, or four million tons more than in the record year of 1942 and nine million tons more than last year. Feed grain prospects are so favorable that despite below average carry-overs an unprecedented supply per animal unit is in prospect.

By-product feeds, too, will be more plentiful than a year ago, except for such high protein ingredients as linseed and soybean oil meals, neither of which will be available in ample quantities because of lower production of flaxseed and soybeans. Cottonseed meal gives promise of being available in a slightly larger amount and copra imports are now arriving at a rate that will permit this by-product of the vegetable oil industry to add perceptibly to the protein feed supply. Other protein-rich feeds such as brewers' and distillers' grains and corn gluten and corn gluten meal are expected to be available in greater quantity than heretofore due to an easing of the restrictions on the use of grains by the alcohol industry.

Although the feed situation is favorable insofar as supplies are concerned, farmers find little incentive for converting feed into livestock products because of current livestock-feed-price-relationships. With old corn selling at \$1.84, and new corn bringing \$1.50 per bushel, producers stand to gain a greater return by selling corn as grain than in feeding it. However, farmers do not base their decisions entirely on current feed-price ratios-they are equally interested in the probable price relationships which they estimate may prevail between now and 1947 harvests. That corn may be expected to decline in price is based upon the fact that the market for it as grain is not unlimited. Corn does not enter into export trade to any extent and requirements for domestic use have been met over the past 20 years from an average of 500 million bushels sold as grain. The greatest quantity ever marketed was 750 million bushels in 1944-45, and substantially less of the 1945 crop was so marketed even though corn was used to supplement wheat in food shipments to foreign countries. With 80 percent of our annual corn production left to be used on farms where produced, it seems reasonable to assume that a further downward adjustment in price will occur. The ceiling price of hogs was set at its present level to provide an estimated corn-hog ratio of 12.8 which would favor the expansion of pork production.

On the basis of the current ceiling price of \$16.25 per hundredweight for hogs the price of corn would have to decline to about \$1.30 per bushel before hog raisers will consider feeding corn to hogs in preference to selling it. Not until the returns from a hundredweight of hogs will buy 12-13 bushels of corn is the farmer inclined to convert his holdings of corn into pork.

The fact that the number of hogs over six months of age on farms on July 1 was ten percent smaller

than a year ago, will tend to delay expansion even after the corn and hog prices adjust themselves (or are adjusted) to a point where pork production is encouraged. Therefore supplies of pork at present prices are likely to be inadequate to meet civilian demands throughout much of the coming year.

The situation differs somewhat with regard to beef cattle. Near-record numbers of grass cattle are available for market. The extent to which these grass-fed cattle will receive further finishing depends upon the present price of feeder cattle, the price trend of corn, and the probable selling price of finished cattle next year when they are to be marketed. Although the present price spread between feeder cattle and finished cattle is less than average, cattle are moving to feed lots in substantial numbers indicating that feeders expect price relationships to be favorable for feeding.

In view of this movement of cattle to feed lots, and the expected feed-price relationships, it appears that the quantity of prime beef produced next spring and summer will be nearly equal to that of the two preceding years. The date this meat will reach the market will depend upon producers' opinions as to when the price will be most favorable. There will be a holding back of spring marketings until after next June 30 if producers expect prices to rise after that date. Large marketings after June 30, especially if in conjunction with a decline in consumer incomes, could cause strong downward pressure on meat prices.

The six percent decline in dairy cow numbers, brought on by heavy culling of herds to maintain a high rate of production per cow, will result in a lower total production of milk next year than this year even though feed grains, by-product feeds and hay are more plentiful. The lower production will to some extent be offset by smaller exports. The fact that fewer heifers two-years-old-and-under were being retained at the turn of the year and fewer heifer calves have been saved so far this year suggests that the dairy cow population will decline further before any break in the trend occurs.

Although poultry experienced a greater downward adjustment from the previous year than any of the other livestock enterprises because of limited feed supplies early this year, it seems likely that it will be the first to attain a production level equal to demand. The number of layers while below the previous year is still moderately high. Furthermore, laying pullets can be added to present flocks in four to six months and broilers can be raised for market in a shorter period of time. Consequently, the expected more favorable feed-price ratio shortly will be reflected in an expanding egg and poultry supply. Meanwhile, the existence of large stocks of eggs as well as poultry meats will tend to offset any temporary decline in production.

Briefly, the favorable feed supply produced by an abundant harvest may be expected to result in more pork late next year, more prime beef by spring and summer, milk production slightly below the current year, and eggs and poultry meats equal to probable demands by mid-1947 as feed grain prices adjust downward.

#### Indexes of Department Store Sales and Stocks

Daily Average for 1935-1939 = 100

	for Sea	Adjusted sonal Var		Season	Without al Adjus	
	Aug. 1946	July 1946	Aug. 1945	Aug. 1946	July 1946	Aug. 1945
SALES:						
Akron (6)	302	272	226	257	226	192
Canton (5)	345	326	236	304	264	208
Cincinnati (9)	306	298	203	-257	218	170
Cleveland (10)	262	252	172	234	189	153
Columbus (5)	349	321	235	297	250	200
Erie (3)	286	278	197	246	211	169
Pittsburgh (8)	275	281	173	239	183	151
Springfield (3)	305	289	238	250	217	195
Toledo (6)	294	272	197	247	193	165
Wheeling (6)	266	249	180	216	184	145
Youngstown (3)	305	294	208	278	221	190
District* (98)	286	260	189	249	203	165
STOCKS:						
District	208	213	156	225	213	169
* Adjusted Index Rev For back figures see			ber 1, 1946	MonthlyB	usiness R	eview.

#### Bank Debits - August, 1946

(29 Fourth District Cities)

In making year-to-year comparisons some allowance should be made for the suspension of banking operations during the period of Japanese surrender in August 1945.

#### LARGEST CITIES

Debits at the six reporting banks in Toledo during August totaled nearly in illion for a 43% increase over August a year ago.

Dayton and Youngstown also reported percentage increases in excess of the large-city average.

In Canton, Cincinnati, and Pittsburgh the debit volume was only moderately above a year ago.

#### SMALLER CITIES

In a number of Ohio Cities and in two Pennsylvania localities, debits reached a new all-time high during August.

**Middletown** reported a volume of nearly \$31 million as against a monthly average around \$20 million during 1944-45. The percentage increase of 63% was the largest of all 29 cities.

. Debits in **Lorain** were about 53% greater than last year, and were close to \$14 million in contrast to \$8-\$9,000,000 per month a year or two ago.

Zanesville reported the third largest percentage increase (48%) with debit in excess of \$20 million for the second successive month.

In Springfield debits went over \$40 million for the first time.

#### (In thousands of dollars)

ALL 29 CENTERS 10 LARGEST CENTERS:	August 1946 \$5,495,077	% change from year ago +18.2	3 mongh ended Aug. 1946 \$16,353,913	% change from year ago + 5.0
AkronOhio	218,238	+18.9	664,219	+ 7.9
CantonOhio	88,662	+10.5	258,750	- 1.2
CincinnatiOhio	706,488	+13.2	2,161,0631	
ClevelandOhio	1,458,807	+14.2	4,349,030	- 0.3
ColumbusOhio	406,643	+26.2	1,253,091	+13.4
DaytonOhio	183,057	+28.9	550,3791	+18.3
ToledoOhio	348,612H		988,4781	
YoungstownOhio	108,071	+27.1	322,1281	
EriePenna.	72,581	+18.7	212,3661	
PittsburghPenna.	1,408,444	+12.5	4,149,465	- 1.4
Total	\$5,999,603	+17.0	\$14,908,969	+ 3.9
19 OTHER CENTERS:				
Covington-Newport . Ky.	34,932	+35.9		+27.5
LexingtonKy.	50,409	+36.6	147,316	
HamiltonOhio	27,082	+17.3	80,8141	1 + 3.8
LimaOhio	34,762H			+18.4
LorainOhio	13,849H			+37.5
MansfieldOhio	30,837H			+20.4
Middletown Ohio	30,674H			+35.9
PortsmouthOhio	16,275H			1 +14.9
SpringfieldOhio	40,891H			1 + 12.8
Steubenville Ohio	19,263	+18.9		$\frac{1}{1} + 17.5$
WarrenOhio	29,857H			$\frac{1}{1} + \frac{17.6}{21.7}$
ZanesvilleOhio	20,341	+47.9 $+33.1$	71 0201	$\begin{array}{c} H + 31.7 \\ H + 12.7 \end{array}$
Butler Penna.	24,710H 6,892	+27.0	20,602	+10.6
FranklinPenna. GreensburgPenna.	16,959	+41.7		H +19.7
HomesteadPenna.	6,906	+31.6		$\frac{1}{1} + 27.8$
Oil CityPenna.	16,639	+15.4	50,692	+ 5.5
SharonPenna.	22,396H			1 + 10.0
WheelingW. Va.	51,800	+21.0	152,482	+ 4.2
Total	\$ 495,474	+31.2	\$ 1,444,944	+17.3

Digit Hedenoges new Herime high for one month or quarter-year.

Federal Reserve Bank of St. Louis

#### **Fourth District Business Statistics**

(000 omitted)

Fourth District Unless Otherwise Specified	August 1946	% change from 1945	July 1946
Retail Sales:  Department Stores—98 firms	63,398 2,606 3,998 78,997	+ 51 + 38 + 76 +111	49,737 1,713 3,724 64,566
—Residential 9 Commercial Failures—Liabilities 9 —Actual Number.	36,122 64 5	+502 + 52 + 25	20,897 27 3
Production: Pig Iron—U. SNet tons Steel Ingot—U. SNet tons	<b>4,898</b> 6,895	+ 15 + 20	4,705 6,610
Bituminous Coal— O., W. Pa., E. KyNet tons Cement—O., W. Pa., W. VaBbls.	22,516 a	+ 23 a	21,010 1,423
a Not available.			

#### Time Deposits\*-12 Fourth District Cities

City and Number of Banks Lexington (5)	\$ 8,057,000	Aug. 28, 1946 \$10,011,000	Percentage Increase 24.3
Erie (4)	29,146,000	35,825,000	22.9
Wheeling (6)	23,643,000	28,470,000 86,752,000	20.4 20.3
Toledo (3)	43,853,000	52,334,000	19.3
Columbus (3)	58,427,000	69,081,000	18.2
Akron (3)	81,051,000	95,821,000	18.2 18.0
Cleveland (4) TOTAL—12 Cities		810,903,000	16.5
Dayton (3)		49,625,000	16.0
Canton (4)	34,284,000	39,299,000	14.6
Cincinnati (8)		177,404,000	14.0
Pittsburgh (14)	286,173,000	317,503,000	10.9
* of Individuals, Corporati	ons, and Nonprofit	Associations.	

#### Wholesale and Retail Trade

Percentage Changes

	From	Precedin SALES S	y Year
	Aug.	first 8	Aug.
DEDARTMENT CTORES (00)	1946	months	1946
DEPARTMENT STORES (98) Akron	+ 35	+20	+34
Canton	+ 47	+24	2
Cincinnati	+ 50	+33	+31
Cleveland	+ 53	+29	+31
Columbus	+ 49 + 45	$^{+30}_{+22}$	+25 +15
Erie	T 58	+37	+34
Springfield	+ 58 + 28	+16	+ a
Toledo	+ 49	+23	+29
Wheeling	+ 48	+30	+41
YoungstownOther Cities	+ 46 + 53	+26 +34	+ a +18
District	+ 51	+30	+31
WEARING APPAREL (15)	40.3		
Cincinnati	+ 29	+10	+21
Cleveland Pittsburgh.	+ 55 + 36	+32 +25	$^{+20}_{+10}$
Other Cities	+ 28	+ 8	+19
District	+ 38	+18	+18
FURNITURE (66)	1 06	1.45	
Canton Cincinnati	+ 86 + 53	$^{+45}_{+52}$	$^{+11}_{+12}$
Cleveland	+ 68	+43	+14
Columbus	+121 +105	+60	- 3
Dayton	+105	+73	+ a
Pittsburgh	+ 67 + 81	+43 +55	+ a + a
Toledo	+106	+62	+ a
Other Cities	+ 72	+62	+11
DistrictWHOLESALE TRADE**	+ 76	+52	+ 9
Automotive Supplies (4)	+ 46	+56	a
Beer (5)	+ 5	- 1	-15
Beer (5)	+ 44 + 27	a	a
Confectionery (3)	+ 27	a	a
Drugs and Drug Sundries (4)	+ 20 + 90	+20	a
Electrical Goods (3)		- <sup>a</sup>	+11
Grocery Group (36)	+ 29	+24	+48
Total Hardware Group (17)	+ 72	+40	a
General Hardware (6)	+93 + 31	+62 + 6	+32
Industrial Supplies (5)	+ 31 + 51	T30	a
lewelry (7)	+ 39	+30 +36	a
Lumber and Building Materials (4)	+ 39 + 25	a	+ 3
Machinery, Equip. & Sup. (exc. Elect.) (4)	+ 23	a	a
Meats and Meat Products (3)	+261 + 49	a	+27
Metals (3). Paints and Varnishes (4)	+ 60	+43	a
Paper and Its Products (6)	+ 17	+14	a
Paper and Its Products (6)	+ 20	+34	+41
Miscellaneous (16)	+ 39 + 32	$^{+21}_{+25}$	+35 +36
** Wholesale data compiled by U. S. Department the Census.	of Comm	erce, Dure	au or
the Census.			

Figures in parentheses indicate number of firms reporting sales.

http://fraser.stlouisfed.org/

#### COMPOSITION OF DEMAND DEPOSITS—JULY 31, 1946 (Fourth District)

3	Banks With Demand Deposits of—				
Deposit Classifications In Terms of Ownership	Over \$100,000,000 (8 Banks)	\$10,000,000 to \$100,000,000 (23 Banks)		Under \$1,000,000 (11 Banks)	
CLASSIFIED ACCTS.: Mining & Manufacturing. Personal. Farmers. Others. Retail & Wholesale Trade.	43.4% 9.5 xxx xxx 7.1	22.6% 11.5 xxx xxx 10.8	15.4% xxx 3.7 18.3	8.4% xxx 12.9 29.3 11.8 1.4	
Public Utilities	5.7 4.4 4.0 3.8 2.1 1.1	6.4 4.7 4.1 2.7 2.7 2.3	2.6 6.0 4.5 1.2 2.7 .6	1.4 1.3 1.4 * 2.4 3.	
UNCLASSIFIED ACCOUNTS: Under \$10,000. Under \$3,000. Under \$1,000.	18.9 xxx xxx	32.3 xxx xxx	xxx 30.5 xxx	xxx xxx 30.8	
Total Demand Deposits	100.0%	100.0%	100.0%	100.0%	

<sup>\*</sup>Less than .05%

# Changes In Deposit Ownership (Continued from Page 2)

from commercial banks. Since large-scale repayment of bank loans does not appear imminent, and since working capital requirements are hardly likely to diminish as long as labor and material costs are relatively high, manufacturing and mining balances may extend the recent uptrend over a considerable period. But the rate of increase will probably be slower than that in effect over the past three or four months, and another series of work disruptions such

as was encountered earlier this year might seriously retard further expansion of manufacturers' deposits.

As for retail and wholesale firms, reductions in inventory and in outstanding credits were, until comparatively recently, the predominant factors in the growth of cash assets of distributive enterprises.

With the reappearance of many lines of consumer goods that process has been reversed—at least with respect to inventories and receivables. Yet cash assets have continued to expand. The steady rise in prices has increased working capital requirements. Mercantile houses have elected to borrow rather than to deplete cash reserves in order to handle the large dollar volume of business. After a 49% expansion during the past three years, it may be unlikely that current cash reserves will need to be supplemented in the coming months, but it does not appear probable that working capital requirements will soon recede to 1943 or earlier levels.

The smaller banks have more at stake with respect to the trend in individuals' propensities to hold demand deposits. Whether present unprecedented cash holdings will be drawn down substantially in the purchase of consumer goods, housing, investments and through other disbursements, is one of the most difficult questions. Again the future course of prices, employment, etc., are pertinent considerations. But equally as important is the future role of consumer credit. If consumers tend to use their personal credit, while maintaining their cash reserves more or less intact, the prospective decline in personal accounts may be quite moderate. Perhaps not until a period of business depression, when consumers customarily reduce their indebtedness, and encroach upon funds for living expenses, will there occur a noticeable contraction in deposits owned by individuals and small business.

#### NEW MEMBER BANK

Polithania State Bank Pittsburgh, Pennsylvania

