

MONTHLY  
*Business  
Review*

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CONTENTS

Employment Trends in Ohio . . . . .	1
Instalment Collection Rates in Department Stores . . . . .	5
National Business Summary . . . . .	10
Announcements . . . . .	11
Iron and Steel on the Move . . . . .	12

FINANCE • INDUSTRY • AGRICULTURE • TRADE

FOURTH FEDERAL RESERVE DISTRICT

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Federal Reserve Bank of Cleveland

Cleveland 1, Ohio

## Employment Trends in Ohio

SINCE the start of the Korean conflict in 1950, non-farm employment in Ohio has risen by about 340,000 workers, or some 12 percent. Most of the increase in the first two years following Korea were work-force additions by defense or defense-related industries, but additions during the past twelve months have been centered largely in the private sector as defense demands leveled off. With some significant exceptions, employment trends in the state have followed the national pattern.

Ohio's nonfarm industries employed an estimated 3,077,500 workers in June of this year. Of this total, 34 percent were engaged in the manufacture of durable goods, 12 percent in the manufacture of non-durable goods and 54 percent were employed in nonmanufacturing industries. Manufacturing employment in the state thus accounts for 46 percent of total nonagricultural employment, as compared with a national average of 35 percent.

Employment in June was 6 percent more than a year ago and less than one percent below last December's seasonal peak. A major portion of the year-to-year gain was due to the expansion of activity by durable-goods manufacturers, continuing a trend that has been evident since the beginning of 1950. Only about half of the year-to-year gain in durable-goods employment is accounted for by the return to work of employees affected by last year's steel strike. Durable-goods producers in Ohio—as elsewhere—have increased their work forces several times as rapidly as all other nonfarm employers; employment in durable-goods industries rose about 8 percent in the last 12 months when allowance is made for the steel strike, and 24 percent since Korea (June 1950). An

accompanying table indicates total employment in major Ohio industries and the changes that have taken place since June 1950.

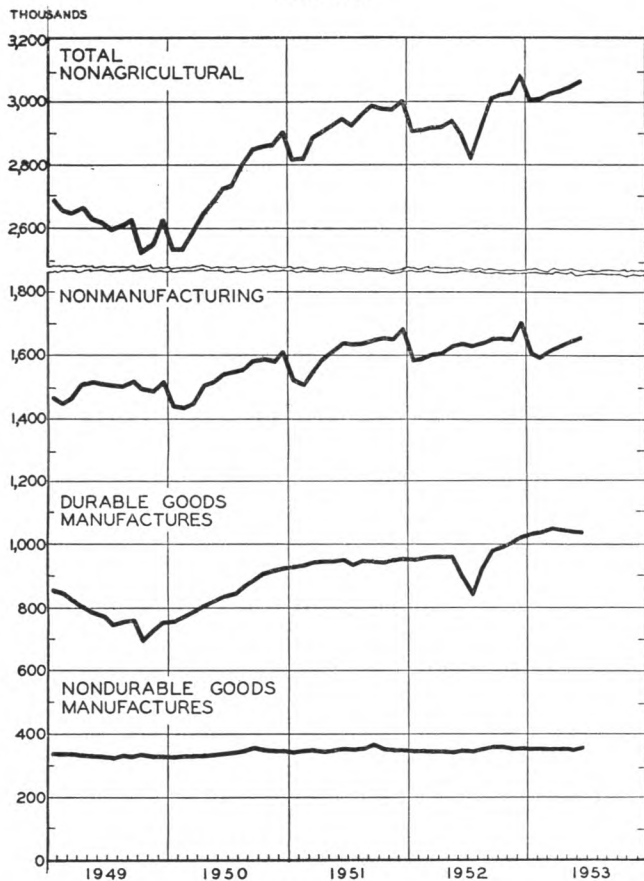
### Durable Goods Manufacturers

**Transportation Equipment Sets Pace** The rapid expansion of the aircraft industry following Korea, the military's demand for vehicles and parts, and expansion of the state's automotive production facilities coupled with this year's record-breaking passenger car output, all combined to push employment in the transportation industry during March of this year to a position 80 percent ahead of pre-Korean levels. Percentagewise, this is twice the employment gain registered by any other major industry. It represents an addition of about 69,000 workers. Since March, however, labor-management disputes have reduced employment in the industry. During April and May, a work stoppage at a jet engine plant near Cincinnati reduced the total. During May and June, parts shortages caused by strikes at supplier plants in other states forced layoffs by motor-vehicle producers in Ohio. All disputes have now been settled.

Aircraft employment has expanded fivefold in Ohio since Korea, and is currently 24 percent above a year ago. According to a recent report of the U.S. Department of Labor, about 7½ percent of the nation's aircraft workers are employed in Ohio plants. Although Ohio does not have any giant assembly plants comparable to those on the West Coast, it is the third ranking state in production of aircraft and parts in terms of manpower input, following California and New York, respectively. From only 10,500 workers

## ESTIMATED NONAGRICULTURAL EMPLOYMENT IN OHIO, BY MAJOR INDUSTRIAL GROUPS

1949-1953



... nonfarm employment in Ohio is currently near peak levels. The seasonal upswing in nonmanufacturing employment continues to swell the total, more than offsetting recent reductions in durable-goods work forces occasioned by labor-management disputes. The biggest part of the employment increase since Korea, however, has been in the durable-goods industries.

Latest date plotted: June.

Source: Division of Research and Statistics, Ohio Bureau of Unemployment Compensation.

in June 1950, employment in Ohio's aircraft industry rose consistently to a peak of 54,400 men and women this June. The steady upward trend was interrupted by labor-management disputes late last year and again this year.

Automotive producers had boosted their work forces 35 percent above pre-Korea levels by this April, due mainly to the location of new plants and the expansion of existing facilities in the state. Record passenger-car output in the first half of 1953 and military demand also contributed, but the latter is not as important a factor as it was earlier in the defense build-up.

During June 1950, the month in which the all-

time passenger-car assembly record was established, motor vehicle and equipment manufacturers in Ohio employed about 66,900 workers. Employment rose rapidly through the initial quarter of 1951, then receded slightly and leveled off as material controls became effective and production quotas were imposed. Following a sharp dip during last year's steel strike, work forces were again expanded rapidly as material shortages eased and finally began to disappear. A peak of 90,000 workers was reached in April, but layoffs were made necessary during May and June because labor-management disputes in out-of-state supplier plants resulted in shortages of parts.

### Machinery Employment 30 Percent Above Korea

Ohio's machinery manufacturers took on nearly one-fourth of all the workers added to nonfarm payrolls since Korea. Nonelectrical machinery manufacturers increased their labor force by 28 percent during the past three years, while electrical machinery producers boosted employment by one-third.

The sharpest increase in hiring in the nonelectrical machinery industry was made by producers of metal-working machinery. They have increased their work forces by nearly 60 percent since Korea; most of the increase was made early in the defense program, when such producers' durable goods as machine tools and accessories, presses, forging machines and other metal-working machinery were so urgently needed. Employment has advanced 2 percent since the third quarter of last year, mainly in response to increased private demand.

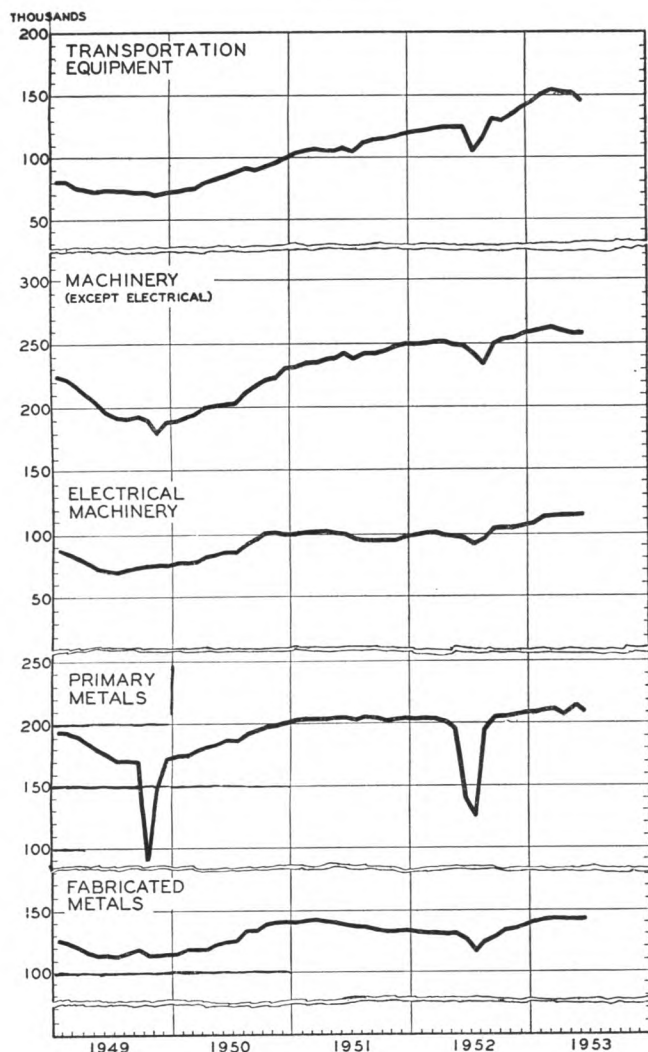
The number of employees in the service-and-household machinery industry is now about the same as pre-Korea, but has increased 22 percent since last year. Output of most metallic household durables, such as washing machines, ironers, vacuum cleaners and refrigerators, was largely governed by material allocations while controls were in effect; the recent year-to-year employment gain reflects a return to the high 1950 production level.

Manufacturers of general industrial machinery and equipment increased their work forces one-fifth between Korea and the end of 1951. Employment in the industry then stabilized slightly under the December 1951 peak. Since the industry's output goes mainly into industrial plants and commercial buildings, employment should remain high as long as construction activity and modernization continue at high levels.

Employment in Ohio's electrical machinery industry rose 15 percent in the first five months following Korea, and then remained virtually unchanged until late last year. Materials controls curbed activity in such nondefense lines as electrical appliances (electric stoves, irons, fans, etc.) radios and television, but this was just about offset by increases in the de-

fense-related sector of the industry. Since last fall, employment has advanced 12 percent as private demand rose sharply concurrently with the disappearance of material shortages; in June it stood one-third above pre-Korean levels.

**ESTIMATED EMPLOYMENT IN SELECTED  
DURABLE GOODS MANUFACTURING  
INDUSTRIES IN OHIO  
1949-1953**



... Ohio's major durable goods manufacturing industries, paced by the transportation equipment industry, expanded their work forces considerably during the past three years. The hiring was concentrated in two periods—in the months immediately following Korea and again after the termination of last year's steel strike.

Latest date plotted: June.

Source: Division of Research and Statistics, Ohio Bureau of Unemployment Compensation.

**Employment in Metals Reflects Steel Capacity Gains**

Employment gains in the state's primary and fabricated metals industries since Korea have nearly matched the increases in steel capacity. The annual rated steel capacity of Ohio furnaces was increased from an estimated 19.7 million net tons on July 1, 1950, to over 22.6 million tons on January 1, 1953—a 15 percent increase. Over the same 2½ year period, employment in the metals industries (in the aggregate) rose by about 12 percent.

Although work forces in the metals industries were expanded rapidly following Korea and again after last year's steel strike was settled, employment in primary metals remained virtually unchanged during 1951 and early 1952, while employment by metal fabricators was reduced gradually as material controls bit into consumer durable goods output. The rise in the work forces of metal fabricators that began after the steel strike was settled (see chart) reflects increased activity in automobile and appliance stampings and in other major consumer durable parts and accessories, accompanying the elimination of metal shortages.

Ohio's steel mills have increased their work forces about 6 percent between Korea and the beginning of this year, or less than half the rate of increase in steel capacity. The difference can be explained by two factors. First, technological improvements have reduced the number of workers needed for a given task. Virtually all of the state's mills have been modernized, incorporating at least some of these technological advances—a fact that is not readily apparent when only *net* gains in capacity are considered. Secondly, and less important, some part of the difference may also be due to the expansion of steel capacity by companies not primarily engaged in steel manufacture but using the furnaces' output in their own end product. In this event, the workers are listed under the industry of the company's main product—not as steel workers.

With the exception of the miscellaneous durables group (which includes ordnance workers and which employs only a little over 5 percent of all durables-manufacturing workers) employment increases in the remainder of the durable-goods industries have been moderate, amounting to 3 to 4 percent in lumber and furniture and in the stone, clay and glass industries.

**Predominance of Durable Goods Manufacturing**

Ohio has become more dependent upon durable goods manufacturing industries for employment during the post-Korean period. Part of this expansion is directly traceable to new demands upon basic industries arising out of the defense program but it also reflects expansion in the demand for civilian products.

Table I  
ESTIMATED NONAGRICULTURAL  
EMPLOYMENT IN OHIO  
June 1953 (a)

INDUSTRY	Employment	% Increase from Same Month:			
		Ohio			U.S.
		1952	1951	1950	1950
<b>Total Nonagricultural Employment</b> .....	3,077,500	6	4	12	11
<b>Durable Goods Manufacturing</b> .....	1,042,900	16	9	24	26
Lumber products, furniture and fixtures.....	36,700	1	-2	3	-1
Stone, clay and glass products.....	73,600	4	-3	4	6
Primary metals.....	213,000	53	4	13	12
Fabricated metal products..	143,200	13	4	15	21
Machinery, except electrical.	258,600	4	6	28	26
Electrical machinery.....	116,400	18	16	33	42
Transportation equipment..	144,100	14	32	67	54
All other durable goods <sup>(b)</sup> ..	57,100	7	12	38	49
<b>Nondurable Goods Manufacturing</b> .....	367,900	3	1	5	5
Food and tobacco products..	70,900	(c)	1	1	(c)
Textile mill, apparel, fabric.	48,500	6	1	2	2
Paper and allied products..	36,000	5	-3	4	11
Printing and publishing....	54,200	3	3	6	6
Chemicals, petroleum and coal.....	55,000	(c)	-2	6	13
Rubber products.....	88,500	6	5	13	14
Leather products.....	14,900	1	-1	-3	3
<b>Nonmanufacturing Industries</b> .....	1,666,700	2	2	8	8
Mining and quarrying.....	24,100	-7	-8	-15	-10
Contract construction.....	161,700	3	6	25	6
Transportation.....	174,200	5	-2	4	8
Communication and utilities	71,300	4	9	13	9
Wholesale and retail trade..	564,800	1	1	6	9
Finance, insurance, real estate.....	89,800	2	6	11	13
Service and miscellaneous..	258,800	1	-2	(c)	4
Government.....	321,900	1	6	12	12

Note: Details do not add to totals because of rounding.

(a) Preliminary.

(b) Includes ordnance, scientific instruments, and miscellaneous manufacturing.

(c) Less than 0.5 percent.

Source: Division of Research and Statistics, Ohio Bureau of Unemployment Compensation and Bureau of Labor Statistics, U. S. Department of Labor.

The state has always been relatively vulnerable to any cutback or slowdown in general business activity. Manufacturing employment in Ohio appears to be slightly more sensitive to general business fluctuations than manufacturing throughout the nation. Nevertheless, a recent study of employment covered by unemployment compensation<sup>1</sup> suggests that this departure from the national pattern is very limited and

<sup>1</sup>Paul G. Craig "Comparison of movements of covered employment in Ohio and the United States", *Bulletin of Business Research*, Ohio State University, May 1953.

tends to be offset by the performance of four non-manufacturing groups having less cyclical variation of employment in Ohio than they do nationally. These industries, which taken together accounted for 37 percent of Ohio's covered employment in 1951, are: wholesale and retail trade; services; transportation, communications and utilities; and finance, insurance and real estate.

### Nondurable Goods Manufacturers

**Moderate Gains** As a group, the nondurable goods industries have added only about 18,700 workers since Korea. Compared with the 204,700 workers added by the state's durable goods manufacturers, the numerical increase does not appear impressive. It represents, however, a 5 percent gain or about two-thirds the rate of increase in nonmanufacturing industries.

About half the numerical gain in employment in the nondurable industries was made by the state's rubber producers. The latter have expanded their work forces by 13 percent since Korea, adding about 10,500 workers. An estimated 4,500 rubber workers have been added during the past three quarters as automobile production set a new record pace.

Other nondurable-goods industries, with one exception, have shown at least some increase in employment since Korea. The exception is the leather-products industry (primarily shoes) which employs fewer workers than before Korea, although employment has increased slightly since last year.

### Nonmanufacturing Industries

Slightly more than a third of the workers added to Ohio's nonfarm payrolls in the past three years have gone into nonmanufacturing industries — chiefly into construction, trade or government service.

In percentage terms, construction contractors show the most rapid expansion in work forces from pre-Korean levels. In June of this year, the number of construction workers established a new high for the month, with prospects of further gains as the building season progresses. A labor dispute earlier this year slowed work considerably on the Portsmouth atomic energy plant. The area's construction force, however, is now being expanded rapidly in an effort to get back on schedule. During June, 1,459 workers were hired and A-project employment (including operating personnel) passed 7,000.

Ohio's turnpike has been delayed until recently by legal difficulties; it may not prove to be very important as a stimulus to construction this year since most of the paving contracts are still to be let. Bid on several eastern sections were recently turned down by the Turnpike Commission.

Additions to government payrolls since 1950 have been largely by Federal agencies. In June, Federal government employees numbered one-fourth more

(CONTINUED ON PAGE 5)

# Instalment Collection Rates in Department Stores

**D**URING the past six months, instalment-account collections by Fourth District credit-granting department stores have represented a smaller percentage of outstandings each month than in like months of previous years. In May, for example, such collections represented 14.5% of outstandings, the lowest collection ratio for any month in records dating back to 1940. (See accompanying chart.)

Even though department-store trade represents only one of the areas in which instalment credit plays a part, the general importance of instalment-credit developments at this time warrants a further look at the recent record. What significance should be attached to the drop in collection ratios, at least as experienced by Fourth District department stores? Certain background information is needed for answering this question.

The instalment credit data available from department stores of the District include figures for instalment sales, collections, and receivables. Accompanying charts show monthly movements in each, and provide some basis for examining their mutual relationships.

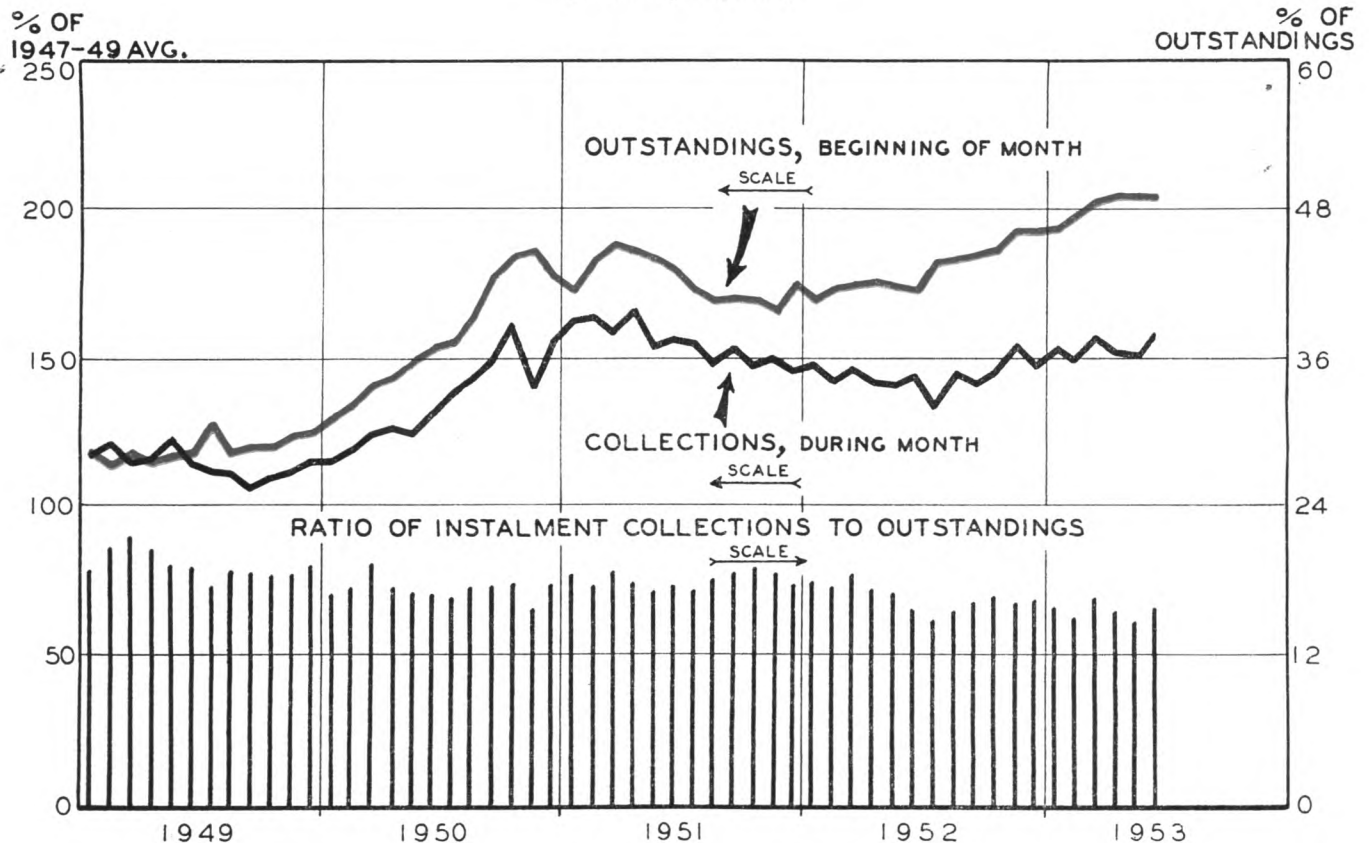
## Instalment Sales in Relation to Total

The relative importance of instalment sales to total sales volume is shown by one of the smaller accompanying charts.

The top line traces the monthly index of total sales by Fourth District department stores, without adjustment for seasonal variation, from January 1949 to June 1953. Each month's index is divided in accordance with the percentage of total sales ac-

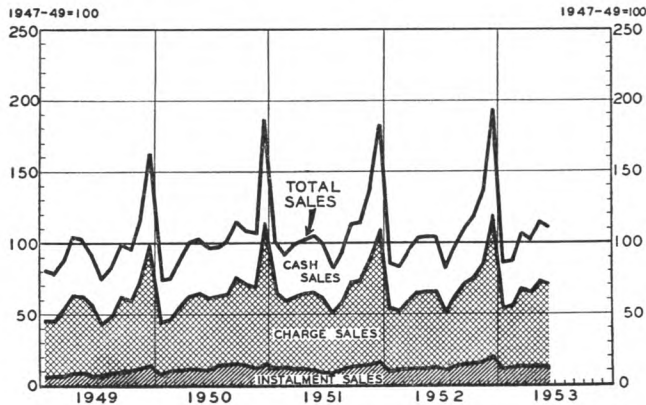
### INSTALMENT-ACCOUNT OUTSTANDINGS AND COLLECTIONS

Fourth District Department Stores  
(Seasonally Adjusted)



... the rise in volume of instalment-account collections by Fourth District department stores during the past year has failed to keep pace with the increase in outstandings, resulting in a declining collection ratio during most of the period.

**DEPARTMENT STORE SALES BY TYPE  
OF TRANSACTION**  
Fourth District  
(Without Seasonal Adjustment)



... charge account sales have consistently accounted for about half of total Fourth District department store sales each month during the past five years; the ratio of instalment sales to the total, however, has fluctuated between 8 percent and 16 percent during the same period.

counted for by each of cash, charge, and instalment transactions.<sup>1</sup>

The striped area at the bottom of the chart represents the portion of total net sales accounted for by instalment-account transactions. Immediately apparent is the relatively small proportion of total department store sales which is handled on an instalment-account basis. During the first six months of 1953, for example, instalment sales averaged about 13% of the total volume.

Recent instalment-sales ratios, however, are larger than they have been at some times in the past. During 1949, for example, the ratio of instalment sales to the total averaged less than 10%. The gain in the proportion of instalment sales to the total during the past five years, a period when total volume has been increasing, has been an important factor in increasing instalment receivables.

The unshaded area shows the proportion of department store sales transacted on a cash basis. In 1949, cash sales accounted for 40% of total volume, while for the first six months of 1953, the ratio has dropped to 37%.

Charge-account sales, indicated by the cross-hatched area on the chart, represent the most stable element in department store sales. Charge sales have consistently accounted for about half of total sales during the five year period shown on the chart, so that changes in the composition of the total tend to revolve mainly around shifts in emphasis between cash sales and instalment sales.

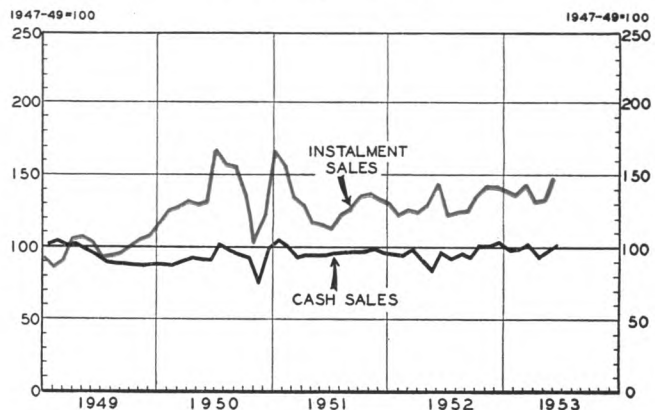
(1) Distribution of total net sales by type of transaction was obtained from reports of a smaller group of credit-granting department stores than are included in the total sales index.

**Cash and Instalment Sales** Changes in the actual volume of cash sales and instalment sales by Fourth District credit-granting department stores are shown by the second of the small charts. The black line traces the course of seasonally adjusted cash sales each month during the past five years, while adjusted instalment sales are shown by the red line.

During practically all of the five-year period, adjusted cash sales have been close to or slightly below the 1947-49 average volume. During the past two years, for example, adjusted cash sales have surpassed the base period average in only five months. While the volume of cash sales has shown no significant increase from the 1947-49 average in the last five years, total adjusted department store sales have been higher than the 1947-49 average during most of the same period. The result has been a drop in the proportion of total sales entered as cash transactions.

The adjusted dollar volume of instalment sales, contrary to movements in cash sales, has shown substantial increase during the past five years. Total volume of instalment sales began to show gains each month during late 1949 and early 1950. By June 1950, at the time of the outbreak of hostilities in Korea, instalment sales were 130% of the 1947-49 average. Post-Korean scare buying boosted the adjusted volume to a record 167% of 1947-49 average daily sales in July and, following a brief reaction, instalment sales during January 1951 jumped to about the level of the previous July. Instalment sales fell off rapidly during early 1951 but by mid-year, were increasing again, reaching a peak in

**INSTALMENT AND CASH SALES**  
Fourth District Department Stores  
(Seasonally Adjusted)



... seasonally adjusted instalment sales by Fourth District department stores have been well above the 1947-49 average during each month of the past two years; cash sales, however, have exceeded the 1947-49 average in only five months during the same period.

November. Again, a period of declining instalment sales set in, interrupted by a peak in June of last year. In the fall of 1952, instalment sales rose to over 140% of the 1947-49 average and have maintained the gains so far this year except for April and May.

Increases in instalment sales-volume during the past five years have generally outpaced gains in total sales. As a result, instalment sales have tended to increase their share of the total volume.

**Instalment Receivables and Collections** Monthly movements in instalment account receivables and collections are shown on the large chart. The red line traces changes over the last five years in the volume of outstandings (seasonally adjusted) held by Fourth District credit-granting department stores at the beginning of each month. The black line represents monthly collections, also seasonally adjusted. The ratios of instalment-account collections to outstandings are indicated by the bars on the lower portion of the chart.

Instalment-account outstandings have evidenced substantial growth during the past five years. Adjusted instalment receivables at the beginning of each of the past four months have been more than double the 1947-49 monthly average. The growth in receivables has been the result of two distinct periods of consistent monthly increases since 1949.

The first period of growth began in late 1949 and continued through most of 1950. A large share of this expansion in adjusted instalment receivables can be traced to increases in sales volume during the same period. While instalment receivables were growing in late 1949 and early 1950, adjusted collections also increased at about the same pace. Similar gains in both instalment account receivables and collections tended to offset each other and resulted in little change in the ratio of collections to receivables. In August 1949, at the beginning of the upward trend in receivables, instalment collections were slightly over 19% of outstandings. By August 1950, the ratio had dropped slightly to 17%.

The second period of significant growth in instalment receivables during the past five years is that which has occurred between July 1952 and the present, although in recent months receivables have shown some tendency to level off. The present growth period shows little similarity to the earlier expansion. During the past year, adjusted collections on instalment accounts have failed by a wide margin to maintain the pace of the growth in receivables. The result has

been a decline in the collection rate on instalment accounts.

Recent declines in collection ratios reflect a relatively large growth in outstandings rather than a decline in collections as such.

Important factors influencing the rate of instalment collections are the terms upon which the instalment sales are consummated. Easing of instalment credit terms during the past year and the accompanying rise in instalment sales may well have had a considerable influence on the present collection rate. If the period of time over which repayment is to be made is lengthened, an increase in instalment sales will, as the previous shorter term contracts are liquidated, tend to reduce the collection ratio, even though the dollar volume of collections may be increasing.<sup>2</sup> During the later months of 1952, instalment sales increased considerably. Although sales have not been increasing so far this year, the effects of contracts negotiated last fall still have an influence on current collections.

**Conclusions** In sum, then, the original question as to the significance of the drop in the collection ratio may be answered broadly as follows: The reduction does *not* reflect defaulting by consumers; nor does it necessarily indicate that consumers are running into financial stringency, although such may be the case. The primary reason for the drop in the collection ratio lies in the delayed effects of a previous trend toward easier terms and a previous bulge in the volume of instalment buying. Thus, the falling collection ratio may perhaps be regarded as an additional symptom of last year's disquieting rate of expansion in the use of instalment credit, but it should not be regarded as a sign that a major retail downturn has already arrived.

Since the factors which appear to have been mainly responsible for the recent downtrend in instalment-collection ratios have shown a tendency to move toward relationships more apt to produce a favorable collection ratio, it is entirely possible that the period of deteriorating ratios is largely passed, and that such ratios soon will stabilize or even improve. To the extent, however, that such a development would represent an accompaniment of falling volume of instalment sales, the net implications for the general business outlook might not be favorable.

(2) Specific information on instalment-credit terms is not included in the department-store reporting system. However, there are grounds for believing that both downpayment and maturity terms have tended to be eased since May 1952.

**EMPLOYMENT TRENDS IN OHIO**

(CONTINUED FROM PAGE 4)

than the same month in 1950, whereas state and local governments increased their employment only 7 percent. Reductions have been begun by the Federal agencies, however, and they currently employ 5 percent fewer people than a year ago. State and local governments have added workers during this period.

Ohio's coal mines have reduced employment nearly one-fourth over the past three years—the only nonmanufacturing industry contracting its work force. The rate of reduction in the number of coal miners has been about four times the dip in coal production, however. During the first four months of this year, Ohio produced 6 percent less coal than during the same 1950 months but used 24 percent fewer coal miners. This gives some indication of the trend towards strip mining and the mechanization of underground workings. Employment in the state's other mines and quarries has remained virtually unchanged throughout the Korean period.

**Developments in Major Labor Markets**

In the 18 major labor market areas in the Fourth District regularly reported upon by the Bureau of Employment Security of the U. S. Department of Labor, employment has been relatively stable this year. In none of the 18 major areas are there labor shortages that might impede essential activities, or labor surpluses and substantial unemployment.

In May, twelve of the District's major labor markets were characterized as having a balanced labor supply, e.g., labor demand and supply were approximately equal. In the other six areas, the supply of labor moderately exceeded demand (Table II). Manufacturing employees in most areas foresaw measurable employment gains to mid-summer. In the Portsmouth-Chillicothe area, the gain was expected to exceed 3 percent between March and July as large demand for construction workers—mainly for the AEC project—dominates the market. Only in the Lexington area was any reduction anticipated and that was largely because of seasonal cutbacks in tobacco processing.

In the smaller District labor markets, only the Uniontown-Connellsville, Pennsylvania area was reported to have a substantial labor surplus in May. Substantial cutbacks in coal operations in the area have cut mine work forces about 10 percent below a year ago. One other small area, Athens-Logan-Nelsonville, Ohio, was removed from the list between March and May as employment picked up in construction, in trade and in clay products.

Unless otherwise indicated, the following roundup of labor market trends in major areas is based upon

recent reports of the local Ohio State Employment Service office in each area.

**Akron.** Employment dipped moderately between March and May, but was up 3 percent from the year-ago month. Most of the March-May decline is attributable to labor-management disputes in construction, which have now been settled. Slight increases were expected in most industries between May and July. Work forces in the area's major industry, rubber, have remained relatively stable at high levels and, in May, were 1½ percent above a year ago. Transportation-equipment producers, however, have registered a 22 percent gain since last year and expected to expand their work forces further in July.

**Canton.** A work stoppage at a forging establishment and the permanent closing of a metals fabricating concern caused employment to decline between March and May. With the settlement of the labor-management dispute late in May, July employment is expected to return at least to the high March level when important metals and machinery companies were employing 4 percent more workers than a year ago. Not counting workers involved in disputes, over-all nonagricultural employment in May was slightly above the same 1952 month.

**Cincinnati.** Seasonal increases in employment have been experienced so far this year with nearly all industries doing some hiring. Comparisons of May employment with a year ago show a 12 percent increase in manufacturing chiefly due to hirings by the important transportation-equipment (automotive and jet engines), electrical-machinery and metals industries. Nonmanufacturing employment was about the same as a year ago. Employer forecasts indicated further advances in practically all industries through July.

**Cleveland.** Employment in May equaled the highest figure on record, and employer forecasts indicate a new all-time high in July. Manufacturing work forces in May were 7 percent above the same 1952 month, while some reductions occurred in the nonmanufacturing industries, mainly because of personnel reductions by Federal agencies. Major advances over the past year have been made by transportation-equipment manufacturers and metals producers. Employment in all other manufacturing industries, except ordnance, was near or above May 1952 levels. Unemployment at the beginning of June was at a new postwar low.

**Columbus.** Employment has been on the upgrade during early 1953 and was 8 percent above a year ago in May. Most of the year-to-year gain was in fabricated metals and transportation equipment, the area's major manufacturing industries. Further gains were foreseen for July in both manufacturing and nonmanufacturing industries.

**Dayton.** Employment in industries surveyed by the local state Employment Service office was at a new high in May with further advances indicated for July. Sharp year-to-year increases in the important machinery industries more than offset reductions by government agencies, pushing overall nonagricultural employment 6 percent ahead of May 1952. Substantial worker increases were also reported in transportation equipment, rubber, and primary metals.



Table II  
 MAJOR LABOR MARKET AREAS IN THE FOURTH DISTRICT  
 May 1953

LABOR MARKET AREA	Relation of Labor Supply to Demand				Manufacturing Employer Forecasts of Labor Requirements, March to July 1953							
	Short-age	Bal-anced Supply	Mod-erate Surplus	Sub-stantial Surplus	Increase			No Change	Decrease			Not Avail-able
					Sub-stantial	Mod-erate	Slight		Slight	Mod-erate	Sub-stantial	
Akron, Ohio.....		X					X					
Canton, Ohio.....		X					X					
Cincinnati, Ohio.....		X					X					
Cleveland, Ohio.....		X					X					
Columbus, Ohio.....		X					X					
Dayton, Ohio.....		X					X					
Erie, Pa.....			X				X					
Hamilton- Middletown, Ohio....		X					X					
Huntington, W. Va.- Ashland, Ky.....			X				X					
Lexington, Ky.....			X							X		
Lima, Ohio.....		X					X					
Lorain-Elyria, Ohio....		X					X					
Pittsburgh, Pa.....			X						X			
Portsmouth- Chillicothe, Ohio.....		X			X							
Springfield, Ohio.....			X						X			
Toledo, Ohio.....		X							X			
Wheeling, W. Va.- Steubenville, Ohio....			X				X					
Youngstown, Ohio.....		X					X					
Fourth District.....	..	12	6	..	1	5	8	3	..	1	..	..
Continental U. S.....	5	79	81	13	31	40	59	36	4	2	4	2

Source: Bureau of Employment Security, U. S. Department of Labor.

**Erie.**<sup>2</sup> After advancing moderately earlier in the year, employment edged downward during June and July. The May-June loss was less than one percent, however, and manufacturing employment in June was 10 percent higher than a year ago. Most of the year-to-year increment is due to expansion, mainly by the area's important nonelectrical-machinery and transportation-equipment industries. Early in July, the area's major appliance manufacturer furloughed some workers.

**Lima.** Employment levels edged up through May but dropped slightly in June. However, the June total was still 9 percent above 1952 levels. Practically all of the year-to-year gain was in manufacturing—notably in the predominant machinery industry but also in transportation-equipment and the miscellaneous group. Nonmanufacturing work forces advanced nominally over a year ago. The present hiring pattern was expected to continue into August with the biggest gains anticipated in the machinery and transportation-equipment industries.

<sup>2</sup>Erie Employment Office, Pennsylvania State Employment Service and Federal Reserve Bank of Philadelphia.

**Pittsburgh.**<sup>3</sup> Hiring by the machinery and steel industries pushed June employment slightly above May. Manufacturing employment has remained at near-record levels this year. The June total, estimated at 382,400 workers, was only fractionally under the March peak and about 3 percent above last September. Unemployment rose between May and June largely as a result of seasonal layoffs in the stone, clay and glass industry.

**Springfield.** Employment inched up through May, and parts shortages caused some layoffs in June. Nonagricultural employment was about the same as a year ago, with small gains about evenly distributed between the manufacturing and nonmanufacturing groups. Year-to-year reductions in primary metals and nonelectrical-machinery work forces were offset by hirings in other industries.

**Toledo.** A long labor-management dispute at an out-of-state supplier's plant created a parts shortage that adversely affected one of the area's largest manufacturing

<sup>3</sup>Pennsylvania State Employment Service and Federal Reserve Bank of Philadelphia.

establishments, forcing it to halt motor-vehicle production entirely late in May. By the end of June, secondary effects of the layoffs were being felt as additional cutbacks were made. Return to near normal employment was expected by mid-July. Some curtailments were still expected, however, with personnel reductions at a large government installation and a small firm moving out of the state in July.

In the twelve months ending this May, substantial work force additions had been made by the petroleum, stone-clay-glass and fabricated-metals industries, while slightly fewer workers were employed in machinery manufacturing in addition to the reductions already noted in transportation equipment.

**Youngstown.** Although employment advanced earlier in the year, completion of government contracts by firms making furniture and fixtures, and fabricated metals, caused some reductions between March and May. The dominant industry, steel, employed about the same number of workers as a year ago, holding the over-all total at about last year's level. In the nonmanufacturing group, a labor dispute in the construction trades held the total under year-ago levels. The current outlook is good. Settlement of labor-management difficulties and hirings by primary metals should boost the July total slightly above May levels.

## SUMMARY OF NATIONAL BUSINESS CONDITIONS

Released by the Board of Governors of the Federal Reserve System

Industrial production in July showed about the usual seasonal decline from the advanced levels of other recent months. Retail sales were maintained in June at levels substantially above a year ago; in July department store sales have declined somewhat. Consumer prices rose slightly further to a new high in June. Wholesale prices advanced somewhat in July, owing mainly to increases in livestock and meats. Yields on long-term high-grade bonds declined.

### Industrial production

The Board's industrial production index in June was 241 percent of the 1935-39 average, as compared with 240 in May and 241 in April. Reductions in output from June to July due to plant-wide vacations in important manufacturing industries and in coal mining are not adequately reflected in the present seasonal adjustments for the production index. During the post-war period this has resulted in a temporary summer dip in the index. This year, the index for July is expected to decline to about 232, or a drop of about 4 percent which is close to the average July decline in other recent years.

Total durable goods production in June held steady as a small decline in steel production from 100 to 97 percent of capacity was offset by small gains elsewhere. Steel output has decreased slightly further in July. Auto assembly since mid-June has been close to advanced rates earlier in the year and July output is at a near record for this month. Truck production in late July was up from the sharply curtailed June rate and was close to the average first quarter rate. Over-all activity in machinery and military equipment industries continued to change a little in June, and production of lumber and other building materials was generally maintained.

Nondurable goods output in June also remained stable at very high levels. Wool textile production continued to expand, and there were also further increases in petroleum refining and chemical industries. Output in most other nondurable lines was generally maintained in large volume.

Production of minerals rose further in June to peak rates as both crude petroleum and coal in-

creased. Crude petroleum output continued to rise slightly in July.

### Construction

Value of all new construction put in place in June, after allowance for seasonal influences, continued close to the early spring record level. The number of nonfarm housing units started declined seasonally from 107,000 in May to 103,000 in June, about the same number started as in June, 1952. Value of construction contract awards declined considerably in June, reflecting reductions in most major categories of construction.

### Employment

Employment in nonagricultural establishments in June at 49.4 million (seasonally adjusted) was up somewhat from May and 400,000 higher than at the beginning of the year. The average workweek at factories was unchanged from May at 40.7 hours. With hourly earnings up slightly further, average weekly earnings at factories rose to \$72.04, somewhat above the previous high for this year reached in March. Unemployment showed about the usual seasonal rise in June and at 1.6 million was a post-war low for the month.

### Agriculture

Crop conditions have been relatively favorable this summer despite drought in some areas, and as of July 1 output was officially forecast at close to last year's volume. Large harvests and increased carryovers are in prospect for corn and wheat. Cotton acreage in cultivation on July 1 was 9 percent less than last year. Total marketings of meat animals in July have been about 12 percent above a year ago. Milk production, which was relatively large last winter and spring, rose less than usual in May and June.

### Distribution

Department store sales in the first three weeks of July declined more than seasonally from the advanced levels reached in the previous two months. In June seasonally adjusted sales at automotive and other retail outlets remained close to May levels;

total retail sales were about 6 percent above a year ago. Seasonally adjusted stocks held by department stores, which had been rising since March, are estimated to have shown little change in June.

#### Commodity prices

The average level of wholesale prices advanced somewhat during the first three weeks in July, reflecting mainly a sharp rise in livestock and meats. After mid-month, cattle marketings—which had been reduced reflecting in part special drought and other Federal support operations—expanded again and prices lost about one-half the earlier advance. Prices for various other foods strengthened in July and prices of a number of household appliances were raised. Prices of industrial materials showed selective changes. While aluminum, iron ore, and lead were advanced, tin declined sharply further and copper wire and cable were reduced.

#### Bank credit and reserves

The consumer price index rose .4 percent in June, to a new high, reflecting chiefly increases in meats and some other foods, which rose further in July.

Holdings of U. S. Government securities by member banks in leading cities increased substantially in mid-July reflecting purchases of the new Treasury tax anticipation certificates. Business loans increased somewhat during the first half of July following a substantial reduction during the last half of June. Consumer and real estate loans continued to expand over the period.

Interest rates charged by commercial banks on short-term business loans averaged 3.73 percent in the first half of June as compared with 3.54 percent in the first half of March. The rise reflected mainly a one-quarter percent increase in the rate charged prime business borrowers effective in late April.

In the first half of July, bank reserve positions remained easy as required reserves of member banks were reduced over one billion dollars as a result of the change in reserve requirements announced by the Board in late June. Later bank reserve positions tightened somewhat due to an increase in member bank required reserves associated with the sharp buildup in U. S. Government deposits at commercial banks following the July 15 sale of Treasury tax anticipation certificates.

#### Security markets

Yields on Treasury bonds and notes continued to decline during the first three weeks of July but at a slower pace than in June. Yields on corporate and municipal bonds also declined from peak levels reached in June. Yields on Treasury bills rose moderately during this period. On July 6 the Treasury offered for cash new 2½ percent tax anticipation certificates of indebtedness dated July 15. This issue will mature March 22, 1954 but will be acceptable at full maturity value for tax payments on March 15, 1954. Allotments totaled \$5.9 million.

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## Announcements

The following appointments of officers of the Cincinnati Branch of the Federal Reserve Bank of Cleveland were announced in July by the Board of Directors of the Federal Reserve Bank of Cleveland:

- (1) R. G. Johnson appointed vice president in charge of the Cincinnati Branch (formerly cashier of the branch)
  - (2) P. J. Geers appointed cashier of the Cincinnati Branch (formerly assistant cashier of the branch)
  - (3) John Biermann, Jr., appointed an assistant cashier of the Cincinnati Branch (formerly manager of the fiscal agency department at the branch)
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# Iron and Steel on the Move

By CLYDE WILLIAMS, Director, Battelle Memorial Institute



New and improved products are constantly being developed to meet the needs of economic and scientific progress. We hear much of the continuing expansion in markets for the versatile metal, aluminum. Titanium has a promising future in the aircraft, chemical, and other industries. The unusual electrical properties of germanium and some intermetallic compounds such as aluminum-antimony are opening up new horizons of accomplishment in electronics. For uses where resistance to

high temperature is required, molybdenum will find its place. Zirconium has unusual characteristics that make it particularly valuable for atomic energy development. The chemical processing industries are bringing us an ever-widening variety of tailor-made plastics that are taking over a few jobs formerly done by metallic materials.

As welcome and necessary as such developments are, one fact remains indisputable. Iron and steel continue to be our most basic materials of construction. No other structural materials have the same combination of strength, cheapness, and versatility. We are still living in the "Iron Age". Any other "Age", whether it be "Chemical", "Electronic", "Atomic", or even the recent "Technologic Age", must necessarily depend on an abundant supply of low-cost iron and steel. These are the materials that dominate in the construction of automobiles, trucks, ships, bridges, railroads, buildings, containers, machinery, and tools—around which all industrial development revolves.

It is no surprise then, that considerable concern has been expressed over rising production costs and declining reserves of high-grade iron ores and coking coals in the United States. Many persons wonder if the country will be able to continue supplying greater quantities of iron and steel at low cost to meet the growing needs of our expanding economy. The demand for finished iron and steel products is expected to increase over 50 per cent during the next twenty-five years.

There is every indication that the iron and steel industry will measure up to the nation's future needs for an increasing supply of its products at continued low cost. This optimistic outlook is based on three principal developments: (1) the progress already being made in changing the conventional pattern of iron ore supply; (2) the movement toward greater decentralization of the industry's productive facilities; and (3) the accelerated research on improved methods for steelmaking and the processing of low-grade iron ores, as well as the continued technological advances throughout American industry.

Some conception of the changing pattern of iron ore supply is provided in an estimate made by the President's Materials Policy Commission on potential quantities of iron ore expected from various U. S. and foreign producing areas during the 1950-1975 period. This projection, reproduced in part below, is based on plans and

expectations of producing companies and shows the following:

## Potential Annual Supply of Iron Ore for the United States (in millions of long tons)

Major Ore-Producing Area	1950-1955	1955-1965	1965-1975
Lake Superior high-grade ores	80	65	50
Lake Superior low-grade taconites	5	15	20
Labrador-Quebec	10	20	40
Venezuela	4	25	40

The above estimates indicate a lessening dependence on Lake Superior high-grade iron ores and a much greater dependence on imports and Lake Superior low-grade taconites. As a result, the three producing areas listed, together with expected supplies from other unlisted U. S. and foreign sources, will provide a potential annual supply of 211 million tons by 1965-75. This represents a 54 per cent increase over the 137 million tons potential annual supply expected from all sources during 1950-55.

The complete projection figures also show that iron ore used in the Central Area (Pittsburgh-Youngstown-Lake Erie-Western New York-Detroit-Chicago) would increase only 22 per cent between 1950-55 and 1965-75. The Central Area would remain the chief steel-producing region. During the same period, however, the consumption of iron ore would be more than doubled in the Eastern, Western, and Gulf steel-producing areas, thereby reflecting a trend toward greater decentralization of steel production.

As in the past, the iron and steel industry will lean heavily on technology to insure the receipt by the nation of greater quantities of iron and steel at low cost. Continually improving techniques for the processing of Lake Superior taconites and other low-grade iron ores are strengthening the domestic iron ore outlook. More emphasis is being placed on methods that will permit more extensive use of coking coals of lower quality than those used in the past.

The basic open-hearth furnace still holds its dominant position as a producer of tonnage steel at low cost. At the same time, other types of furnaces are growing in importance. The surface-blown basic converter, or "Turbohearth", is currently in the pilot-plant stage. Its low capital cost and the relatively rapid rate at which it can produce high-quality steels indicate a promising future. Electric furnaces already produce about 10 per cent of the steel output, mostly in the form of stainless and other high-alloy steels. Developments are in progress that point to possibilities of greatly expanded use, especially in production of low-alloy or carbon steels.

Conservation of steel is much in the picture. Lighter steels will be made stronger to do jobs now done by heavier types. Other savings in steel usage will come from the development of steels that are more wear-and-corrosion-resistant than existing ones.

In the past fifty years, the steel industry increased its annual production capacity over fivefold from 20 million tons to 108 million tons. During one month of the current year, a record output of 10 million tons was achieved! We believe this represents a great tribute to the iron and steel industry and reflects the constant efforts of the industry to meet the expanding needs of the American economy.

Editor's Note—While the views expressed on this page are not necessarily those of this bank, the *Monthly Business Review* is pleased to make this space available for the discussion of significant developments in industrial research.