

A review by the **Federal Reserve Bank of Chicago**

Business Conditions

1961 July



Contents

| | |
|--|------------|
| The port of Chicago— future prospects | 5 |
| Area shifts in manufacturing | 11 |
| The Trend of Business | 2-4 |

THE Trend OF BUSINESS

At midyear personal income and total spending on goods and services were at record highs, and industrial production after rising strongly during the spring was near the pre-recession level of the first half of 1960. Nevertheless, most industries continue to report sizable margins of unused capacity.

Unemployment has held at about 7 per cent of the labor force despite the fact that nonfarm employment has been rising at a rate of about 200,000 per month. Each month additional areas are being removed from the "substantial labor surplus" class (6 per cent or more unemployed), and surveys of employers in the Midwest indicate that they plan to expand employment in the months ahead. The end of the school term has brought into the labor force a large number of graduates and students seeking summer work. As a result it is not likely that unemployment will soon drop to the low levels of earlier postwar years of prosperity.

In June output in the two important industries which had sparked the general uptrend—steel and autos—was still rising after allowance for usual seasonal trends, and most other industries were participating in the rise in activity. Therefore, total factory output continued to rise until midyear, although perhaps not at the rapid pace of April and May.

Diverse price movements

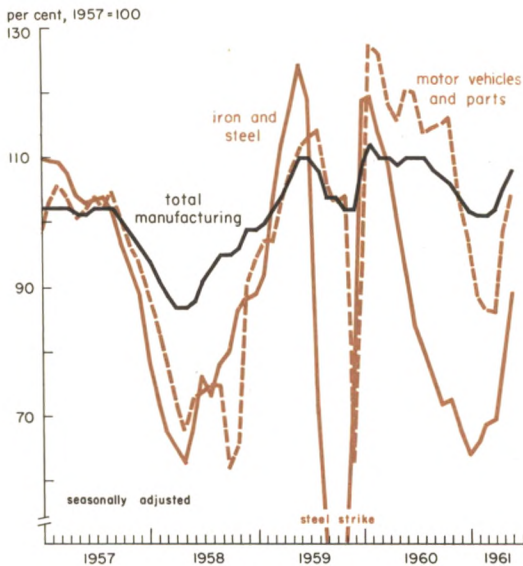
The broadest measures of prices—the consumer and wholesale price indexes—have

been quite stable throughout the first half of 1961. However, these series are based in part upon "list" or "published" prices, while many transactions are concluded at prices above or below the quoted figures. Undoubtedly prices have been somewhat weaker during recessions and stronger during business expansions than is indicated by these comprehensive indexes. Some categories of prices, of course, are much more sensitive than others. "Sensitive industrial raw materials," for example, have risen in recent months as in other periods of recovery. The Bureau of Labor Statistics' index of prices of steel scrap and nonferrous metals rose 12 per cent between the end of January and the end of May, but in June this index stabilized. Typically, price increases have become more widespread in later stages of recoveries.

In May and June, price softness was evident in a variety of commodities, in part as prevailing discounts were formalized in reductions in list prices. Lower prices were quoted on a number of steel products where foreign competition is a factor and on refined copper and copper scrap. There was also a "buyers' market" reported in many building materials, chemicals and rubber goods. In addition, several "trial balloon" price increases were recalled when competition did not follow the leader.

Such evidence of price weakness during a period of rapidly rising production is unusual and may exercise a dampening effect on corporate profit margins. The sub-

Steel and autos lead sharp rise in factory output



stantial increases in capacity made by most industries during the past several years, together with broadened foreign competition, undoubtedly are helping to maintain price stability currently.

Capital expenditures turning up

In June the Federal Government released a new survey of business plans to purchase new plant and equipment. As in the March survey a 3 per cent decline in outlays is projected for 1961 as compared with 1960. There were, however, appreciable changes in individual industries between the two surveys. Public utilities, motor vehicle producers and nonrail transportation, chemical and petroleum firms had scaled down their plans while those of railroad, iron and steel, textile and trade and recreation firms were increased.

The June survey does indicate a definite uptrend in plant and equipment spending during the third quarter. This will be the most abrupt "turnaround" in capital outlays during the postwar period. Such expenditures are now expected to lag the upturn in total spending by only one quarter in contrast to a delay of two to three quarters in previous recessions.

Between the summer of 1960 and last March production of business equipment had dropped 6 per cent while total industrial production declined 7 per cent. In the previous postwar recessions capital expenditures declined far more relatively than total industrial production.

Inventories rising again

Business firms were liquidating inventories at an annual rate of almost 5 billion dollars in the first quarter. This movement apparently came to a halt in April as production rose sharply and consumer buying declined slightly. Further increases in output in May and June were coupled with only a modest rise in takings by final buyers.

Typically, in past upswings the ratio of inventory to sales for all business firms has declined for some months after activity began to rise. For more than a year after the recovery began in 1958 inventories continued to decline relative to sales. A similar development occurred in the 1954-55 recovery.

Because of ample capacity in virtually all lines, producers are able to fill orders promptly either out of inventory or by rapidly increasing production. Under these conditions it is possible that an appreciable decline in the stock-sales ratio will not occur in the months ahead unless sales to final users pick up very sharply. This would be in contrast with experience in other recoveries.

The slight increase in total business in-

ventories reported for April resulted from a rise in holdings of soft goods producers which more than offset a decline in inventories of durable goods firms. However, there was a substantial slowing in the liquidation rate in the case of hard goods manufacturers. Inventories of trade firms remained unchanged during April.

In view of the rapid deliveries offered by producers and distributors and the sluggish trend in retail sales, most retailers find their present inventory position "comfortable." Nevertheless, higher sales would require a prompt step-up in ordering. Some producers of consumer goods, both in hard and soft goods lines, have been increasing output in anticipation of such a development.

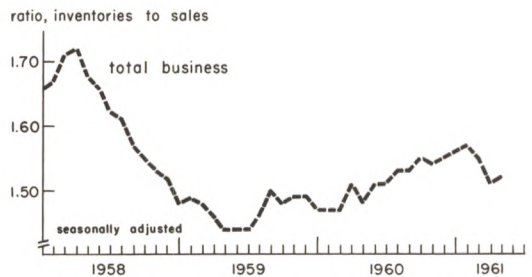
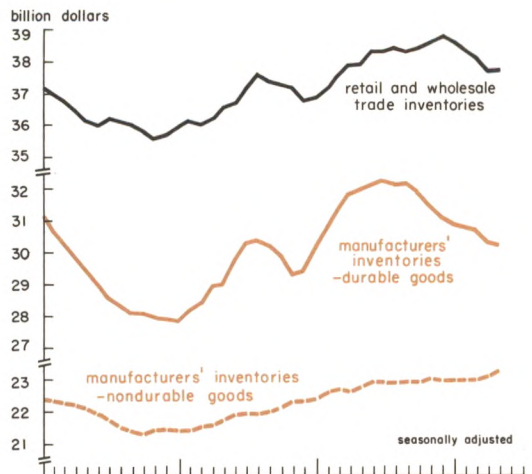
Gains in auto sales

The leveling in steel production during June is related to the trend in auto assemblies. Auto firms purchase about 20 per cent of all finished steel and much larger proportions of sheet and strip. Over short periods of time, changes in demand from the auto industry often dominate fluctuations in the volume of new orders received by steel producers. This was the case in June.

By the end of May producers had largely determined the number of additional 1961 model autos they will turn out. Schedules called for 550,000 cars in June, about the same as May. Sizable reductions will occur in the third quarter as the industry prepares to produce 1962 models.

Deliveries of new cars have exceeded production thus far in 1961. In the first quarter, deliveries to customers were 20 per cent lower than in 1960, and in the second quarter 10 per cent lower. Considerably larger declines occurred in production. At midyear inventories of cars were about 100,000 or 10 per cent lower than at the

Business inventory decline ended in the spring



start of the year. In the first half of 1960, inventories rose almost 500,000 from a level depleted by the steel strike of the previous year.

During the second half of 1961 production and deliveries of passenger cars are expected to improve relative to 1960 according to industry experts and the fourth quarter may equal or slightly exceed the corresponding 1960 period. Nevertheless, for 1961 as a whole even the more optimistic estimates indicate production to be at least 15 per cent below 1960 and deliveries 10 per cent below.

The port of Chicago— future prospects

Widespread participation in the annual international trade fairs and world marketing conferences sponsored by the Chicago Association of Commerce and Industry is symptomatic of the continued growth of interest in international trade throughout the Midwest. In particular, since the opening of the improved Great Lakes-St. Lawrence Seaway in the spring of 1959, considerable attention has been focused upon the port of Chicago's role as a connecting link between overseas markets and the mid-continent area.

Among the major seaway ports, Chicago is endowed with many unique advantages. Surrounding the city is one of the greatest concentrations of manufacturing industries in the world. Such important Chicago area industries as metalworking and machine tools, drugs, tractors and farm equipment, electrical machinery and construction and mining equipment make important contributions to United States exports of finished manufactured goods. Chicago also serves as the hub of a nationwide network of railroad and truck lines and is the only seaway port having a direct connection, via the Illinois Waterway, with the vast Mississippi River system.

Although lake and inland waterway shipping has dominated activity at the port of Chicago for many years, it was generally predicted that improvement of the St. Lawrence Seaway would enable Chicago to enjoy vigorous growth as an ocean port. A major study of the seaway's probable impact on the Chicago area economy (released in 1959) estimated that the port of Chicago could

reasonably expect to be receiving about 6 million tons of new industrial shipping via the seaway by 1965.¹ By way of comparison, in 1958, the year before the seaway opened, Chicago handled only 1.7 million tons of foreign shipping, most of which represented goods moving to and from Canadian lake ports. In that year Chicago's direct overseas export-import traffic amounted to only 320,000 tons.

Harbor improvements launched

To accommodate expected increases in seaway, Illinois-Mississippi Waterway and lake traffic, Chicago has launched an ambitious program of harbor improvements. In the downtown harbor area, including the Chicago River and Navy Pier, improvements costing 10 million dollars are nearing completion. A new 2,300 foot dock and a warehouse have been erected at Navy Pier, existing pier facilities have been extensively modernized and the harbor area is being dredged to a uniform depth of 27 feet. These improvements will enable Navy Pier to accommodate six average-size ocean vessels at one time and will permit access to the largest ships capable of using the St. Lawrence Seaway.

At Lake Calumet Harbor, located approximately 15 miles south of the Loop, the Chicago Regional Port District has spent 24 million dollars on harbor improvements in the last five years and recently accepted bids

¹Joseph A. Russell and others, *The St. Lawrence Seaway*, Vol. 1, pp 39-40 (1959).

for new facilities costing approximately 24 million. The proposed plans provide for construction of the following: a 10 million bushel grain elevator to supplement two smaller elevators, each having a capacity of 6.5 million bushels; three 500 foot wharves with cargo sheds that will increase the port's berthing facilities from 6 to 12 ships; new warehouse facilities and a boxing plant—all to be leased to private operators.

Moreover, Congress has been asked to approve appropriations to dredge the Calumet Harbor from its present depth of 21 feet to the full seaway depth of 27 feet and to straighten the river channel that connects the harbor with Lake Michigan. These improvements are expected to cost several million dollars.

A Chicago firm has begun work on a 200 million gallon bulk-liquid terminal in Calumet Harbor designed to handle petroleum products, chemicals, animal fats, vegetable oils and molasses. The company intends to spend 8-10 million dollars on the project during the next two years and ultimately increase its total investment to 17 million dollars. Recently, a major scrap metal concern announced it had leased two terminal sites in the Calumet Harbor area. On one it will construct a multimillion dollar bulk-liquid terminal; the other, containing iron ore unloading and storage facilities, will be utilized to handle iron and steel scrap, bauxite and bulk liquid cargoes.

In addition to these improvements, a number of major railroads have expressed intentions of building spur lines into the Lake Calumet Harbor area to serve the dock and warehouse installations.

Nearly all of the facilities at Lake Calumet Harbor are being designed to accommodate ocean, lake, barge, rail and truck traffic. This will expedite cargo handling and will permit

year-round port operations. Such commodities as grain, bulk liquids and scrap metal will move into the harbor for storage during the fall and winter months and will be ready for overseas shipment when the Great Lakes-St. Lawrence Seaway opens for navigation in the spring.

Unquestionably, the foregoing harbor improvements will enhance the attractiveness of doing business through the port of Chicago. The largest vessels capable of using the seaway will have access to the Lake Calumet and downtown harbors. The new facilities planned for Lake Calumet Harbor should permit rapid loading and unloading of diversified cargoes and thus greatly reduce vessel turn-around time, an important consideration in shipping. It has been estimated, for example, that the new 200 million gallon bulk-liquid terminal will save ocean-going vessels up to five days on round trips between Chicago and overseas ports. Straightening of the river channel connecting Lake Calumet with Lake Michigan and elimination of some railroad bridges in the harbor area should also speed service in and out of Chicago. The port district's management has as its objective the establishment of express ocean shipping service between Chicago and major ports of the world.

The seaway's impact

In 1959, the first year of seaway operations, the port of Chicago handled nearly 1.2 million tons of direct overseas export-import traffic, or roughly 260 per cent more than in 1958. In 1960, however, Chicago's combined overseas traffic volume declined 7 per cent. In contrast, the total volume of direct overseas shipping handled by 19 major domestic and Canadian seaway ports increased nearly 30 per cent to 6.8 million tons. A number of observers have predicted further seaway

traffic gains for 1961. Meanwhile, overseas shipping activity at the Chicago port during the first two months of the 1961 seaway season has been "very light" according to industry spokesmen.

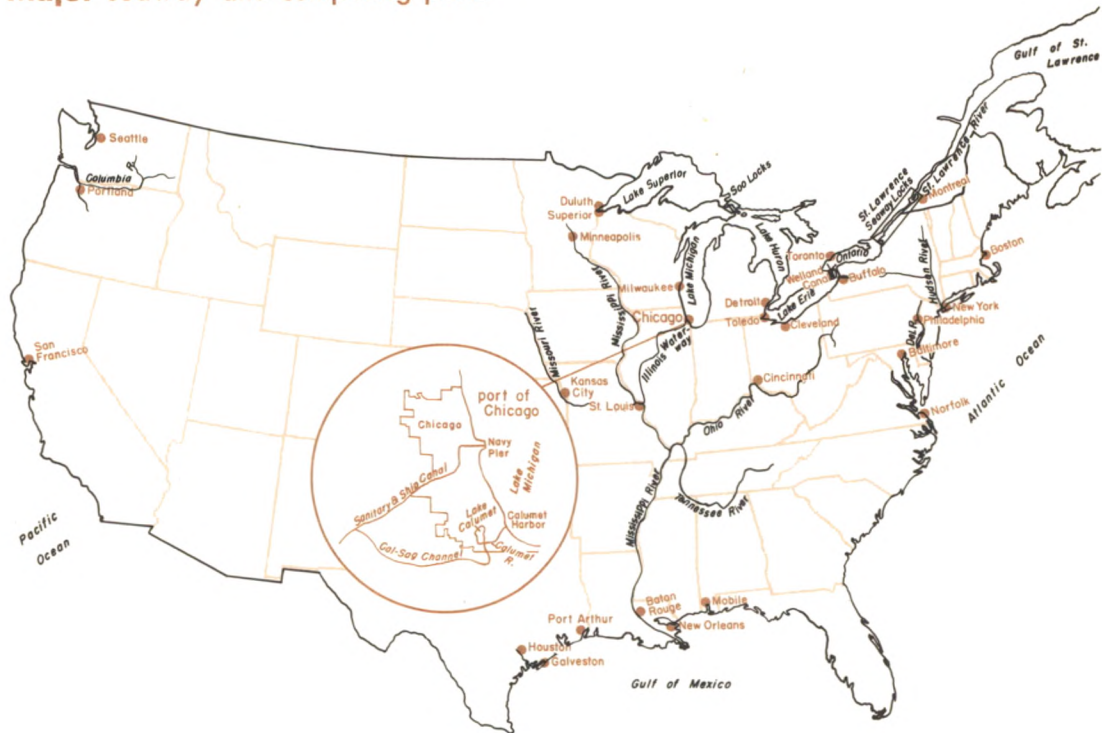
The reduction in Chicago's overseas export-import business during the 1960 shipping season primarily reflected declines in exports of grain (down 83,000 tons) and imports of steel mill products (down 147,000 tons) which were only partially offset by higher exports of iron and steel scrap (up 58,000 tons).

Most major United States seaway ports

recorded declines in imports of steel mill products and gains in scrap metal exports during 1960. A return to normal supply conditions in the domestic steel industry after settlement of the strike in late 1959 reduced sharply the domestic demand for imported steel. The increase in scrap metal exports, on the other hand, reflected a strong European demand for raw materials associated with the continued high level of business activity there.

Overseas grain exports from the port of Chicago dropped to 10.7 million bushels in 1960 from 14.6 million in 1959, a decline of

Major seaway and competing ports



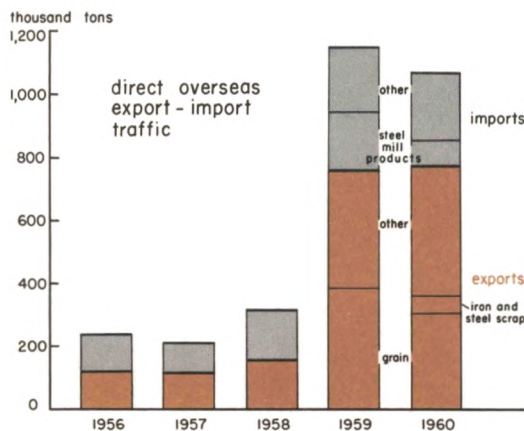
nearly 27 per cent. In contrast, aggregate overseas grain exports from domestic seaway ports rose 24 per cent in 1960 to 112 million bushels, with Duluth-Superior and Toledo accounting for the lion's share of the increase.

The shallow draft of Lake Calumet Harbor—vessels can load to only 21 feet versus 25 feet at Duluth-Superior and more than 35 feet at major tidewater ports—and a 21-day strike of Chicago grain handlers in September have been cited as major factors contributing to the decline in Chicago's grain exports in 1960.

Changes in grain transportation

A major revolution in grain transportation patterns has been under way since the mid-1950's and may be reducing the amount of grain available for export through Chicago. During 1956-58, the Federal Government in-

Decline in Chicago's overseas shipping in 1960 caused by lower grain exports and steel imports



SOURCES: Chicago Association of Commerce and Industry, Chicago Board of Trade, U. S. Army Corps of Engineers.

stituted payments-in-kind programs with respect to wheat and corn and other feed grains to channel export of these grains from private stocks rather than from Commodity Credit Corporation stocks. The railroads had been the primary beneficiaries of heavy Government export grain traffic inasmuch as they provided the "needed flexibility in Government marketing operations," e.g., transit privileges. Private shippers, however, proceeded to divert considerable volume to highway truckers offering lower short-haul rates and to river barges offering lower long-haul rates.

Truck and barge transportation tended to complement one another—the trucks drew grain from short-haul interior points to river terminals for transshipment by barge to tidewater ports situated hundreds of miles downstream. The vast Mississippi River system encompassing 7,000 miles of inland waterways afforded a natural avenue for this mode of grain shipment.

Reflecting this, grain barge deliveries at New Orleans and Baton Rouge, major river ports serving the Gulf of Mexico, increased from 1.8 million tons in 1956 to 3.9 million tons in 1959. This growth has not only resulted in a substantial shift in grain export traffic from North Atlantic to gulf ports, but has also sharply curtailed the amount of grain available for export from Chicago by rail or seaway. Recent studies have indicated that grain movements via barge to the gulf constitute a major source of competition for the seaway.

The amount of grain available for export from Chicago may have been further reduced by substantial grain export rate adjustments announced in June 1959 by major eastern railroads serving the area east of the Mississippi and north of the Ohio rivers. Rates on corn and other feed grains were reduced to

levels that had prevailed ten years earlier. Designed primarily to stave off competition from the seaway, the new rail rates enabled shippers to move grain directly from country origins in Illinois and Indiana by rail to North Atlantic ports for overseas export at lower cost than through Chicago. Although these rate cuts came too late to have much effect on 1959 grain movements, in 1960 they are believed to have figured importantly in the 5 per cent increase in overseas grain exports from North Atlantic ports. In particular, corn exports through North Atlantic ports rose nearly 60 per cent in 1960 to 79 million bushels.

Shortly after the eastern railroads slashed their export grain rates, the north-south railroads serving ports on the Gulf of Mexico made corresponding reductions in their rates to maintain the long-established rate relationship with North Atlantic ports. This move helped the north-south railroads to meet low-cost barge competition on the Mississippi River system and, in the process, may have further enhanced the diversion of export grain traffic from Chicago. A continuation of these trends would dampen Chicago's prospects as a major grain port.

Rate question

Relative costs play a key role in the selection of shipping routes. Cargo rates between Chicago and overseas ports via the seaway are generally cheaper than the combined rail-water or truck-water charges via North Atlantic and gulf ports. Nevertheless, shippers situated in interior points such as Cedar Rapids, Iowa, Decatur, Illinois, or Indianapolis, Indiana, may still find it more economical to move certain kinds of goods directly to tidewater ports for transshipment to overseas destinations than to Chicago for export via the seaway. The same would

apply to goods entering this country.

This reflects the fact that transportation rates between inland points and seaway ports such as Chicago are generally proportionately higher than "export-import" rates—special rates applicable to foreign commerce—in effect between inland points and such tidewater ports as New York, Philadelphia, Baltimore, New Orleans and Galveston.

According to railroad industry spokesmen, export-import rates are established to promote a greater flow of foreign trade. These rates also have a tendency to equalize through transportation costs, thereby helping to establish a parity relationship among the various domestic ocean ports and interior points. To illustrate, published rail export-import rates on many commodities moving by rail between Decatur and the ports of New York, Baltimore and New Orleans generally would be set so as to equalize over-all transportation charges between Decatur and a particular overseas destination, e.g., Rotterdam, Liverpool or Hamburg, regardless of the domestic port through which the goods may be routed.

At times, however, other factors may overshadow cost considerations in the routing of traffic between inland points and ocean ports. For example, speed of delivery is often a paramount consideration in the shipment of general cargo—machinery, metal products, hides, chemicals, drugs, liquor, etc. To meet a delivery deadline set by a Brazilian buyer, a Midwest manufacturer of electrical machinery may have to ship by rail to a port on the Gulf of Mexico to make connections with a scheduled sailing for Latin America, although shipment through Chicago via the seaway might be more economical. Where large items such as hydroelectric turbines or hydraulic presses are involved, railway bridge and tunnel

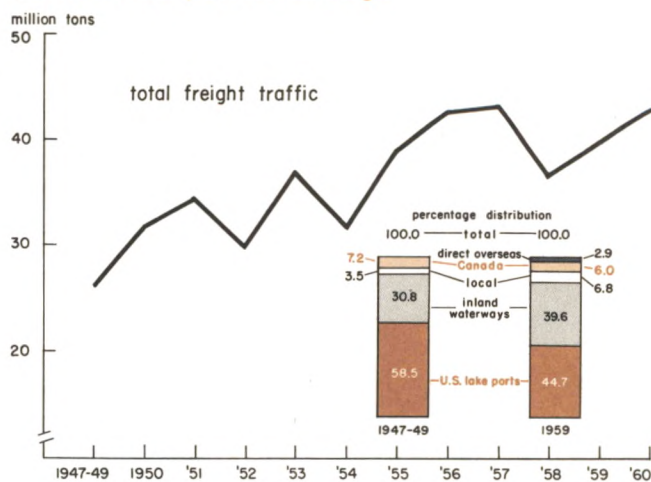
clearances and the capacity of port loading facilities may govern which port is used. The possibility of strike tie-ups in certain port areas also has an important bearing on shipping decisions. In the final analysis, then, the flow of export-import traffic between inland points and ocean ports is determined by the interplay of many factors.

The opening of the improved Great Lakes-St. Lawrence Seaway in 1959 added a new competitive factor to the picture. By giving large ocean vessels direct access to major lake ports, the seaway enabled these ports to compete more effectively for export-import traffic. As noted above, however, railroads serving ports on the North Atlantic and Gulf of Mexico have aggressively applied grain rate reductions to check diversion of traffic to this improved overseas gateway.

In the spring of 1960, major eastern rails also posted substantial reductions in rates on steel, paper and paper products, chinaware and farm machinery moving between points east of the Mississippi River and New York.

Railroads serving the North Atlantic and gulf port areas, of course, have little to gain and much to lose if they adopt export-import rates to promote a greater flow of foreign commerce between seaway ports—Chicago, Detroit, Toledo, etc.—and interior points. Essentially this would be short-haul business. The railroads, however, feel it is to their advantage to encourage long-haul traffic over their lines. Reflecting this, rail export-import rates will often make it attractive for shippers to move many kinds of industrial goods and raw materials originating in or destined to

Lake and inland waterway shipping provides most of the traffic at the port of Chicago



SOURCE: U. S. Army Corps of Engineers.

the Midwest by rail through North Atlantic or gulf ports.

If western railroads reduced their rates to and from seaway ports to stimulate more activity at these ports, railroads serving the North Atlantic and gulf ports might possibly make offsetting readjustments to tariff schedules. Thus, with few exceptions, the rail industry has refrained from establishing preferential export-import rates between the various seaway ports and inland points.

Presumably the present situation would afford an excellent opportunity for short-haul motor carriers to adopt rates that would make it attractive for shippers to move goods between the seaway ports and interior points by truck, but the motor carriers have generally refrained from initiating action on this front. In October 1959 two trucking companies proposed substantially reduced rates on export-import traffic between Chi-

ago, Cincinnati, Indianapolis and Louisville. Following the protest of competing truck and rail carriers before the Interstate Commerce Commission the proposed schedules were suspended and subsequently canceled.

Thus, the new seaway has sharpened competition between Great Lakes, North Atlantic and gulf ports for export-import traffic. The long-term effects on traffic through the port of Chicago, at present, are uncertain. It is clear, however, that midwestern farmers and manufacturers producing for export and consumers of imported goods stand to benefit from any accompanying reductions in transportation costs and improvements in service.

The future

In the meantime, Chicago port officials and interested businessmen are working aggressively to improve their harbor facilities. They are also trying to obtain rate quotations from inland carriers and ocean steamship lines that will enable Chicago to realize its maximum potential as a seaway port. The volume of seaway tonnage moving in

and out of Chicago will probably continue to increase as the area grows in population and manufacturing. However, any large tonnage increases in the near future would require a more effective tapping of the traffic originating at interior points. The same would hold true for most other major seaway ports as well, with the possible exception of Duluth-Superior. This port has become an important grain exporter owing to new gathering rates introduced by northern railroads in March 1960 which have enabled the port to attract export-bound grain from Minnesota, the Dakotas and northern Iowa that was previously shipped by truck to Minneapolis for transshipment by river barge via the Mississippi to the Gulf of Mexico.

One Chicago port official has conservatively estimated that Chicago may be doing 2 million tons of overseas business by 1965, or roughly double the tonnage in 1960. This would represent a significant rise in traffic, but is far below the earlier projections made on the eve of the opening of the new seaway in 1959 which contemplated large drawings from the interior.

Area shifts in manufacturing

Since 1950 United States manufacturing firms have invested almost 140 billion dollars in new plant and equipment and increased their physical output over 43 per cent. This expansion has been accompanied by significant changes in the nation's industrial map.

In the region east of the Mississippi and north of the Ohio rivers—sometimes called the “manufacturing belt”—factory employment increased only 13 per cent between 1950 and 1960 compared with a 29 per cent increase elsewhere in the country. Neverthe-

less that area is still the nation's industrial heartland, providing jobs for over 60 per cent of all workers in manufacturing.

In the East North Central states—Illinois, Indiana, Michigan, Ohio and Wisconsin—factory employment showed no over-all growth between 1950 and 1960. In part, 1960 was a recession year in which durable goods manufacturing, highly important in these states, remained at relatively low levels.

Furthermore much of the growth in Midwest manufacturing has occurred in industries which use relatively large amounts of capital. However, a comparison of "value added in manufacturing"—a measure of the contribution of both capital and labor—for two recession years, 1949 and 1958, gives much the same result. Firms in the East North Central states accounted for 33 per cent of total manufacturing in 1949 but only 28 per cent in 1958.

Growth of manufacturing in the West North Central states—Iowa, Kansas, Minnesota, Missouri, Nebraska and the Dakotas—was the same as the national average and the region maintained its 6 per cent share of the total. In the states south of the Ohio and east of the Mississippi rivers manufacturing grew somewhat more rapidly than the United States average, while in the Southwest, the Rocky Mountain and Pacific Coast areas boosted their share of manufacturing from 13 to 19 per cent of the nation's total.

People and manufacturing location

Most of the areas in which manufacturing has grown rapidly are also regions in which population has increased sharply. In Arizona, for example, manufacturing employment tripled between 1950 and 1960 while population climbed 74 per cent. Over the same period the number of people living in Florida increased 79 per cent and the number of fac-

tory workers doubled. Large increases in both population and manufacturing employment occurred also in California, Colorado, Nevada, New Mexico and Utah.

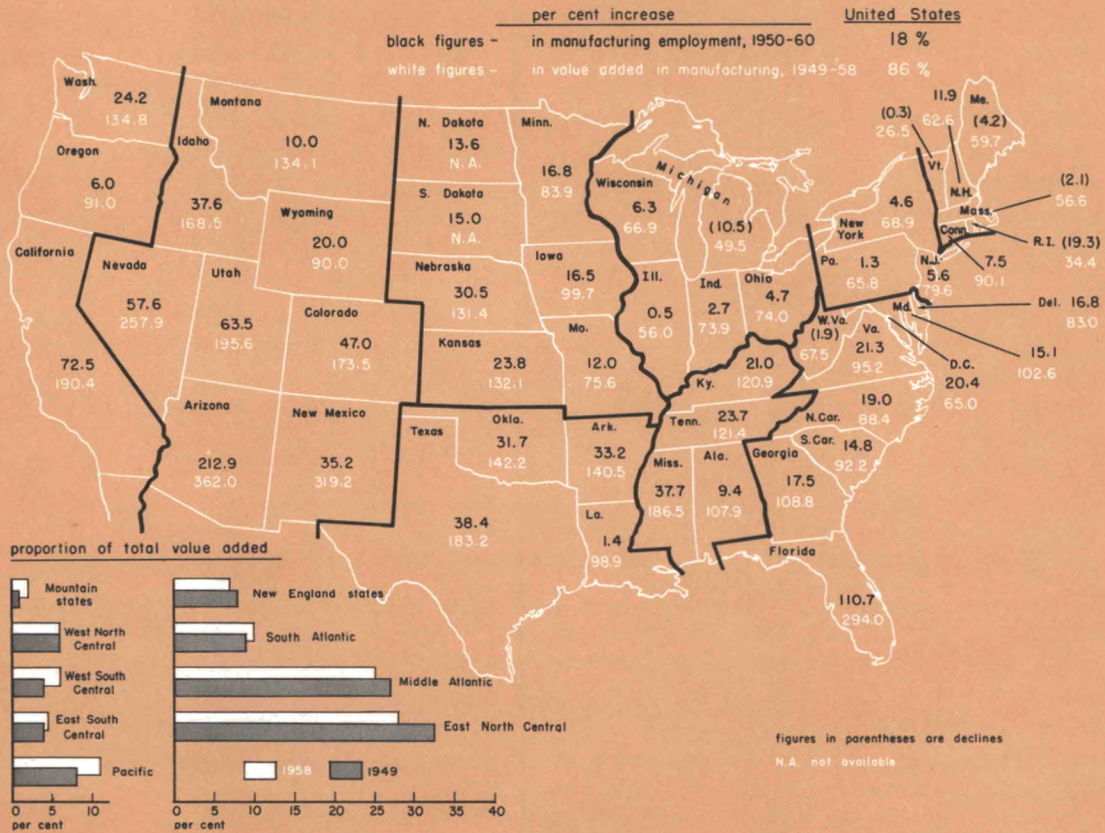
Some of the population growth in the southern and western states is attributable to the immense appeal of their favorable climate to retiring workers but, obviously, retired individuals are consumers, not workers. Many other migrants, in part the highly skilled and professionally trained, were drawn by the specialized employment opportunities in these states. This influx of new workers and consumers created both labor and market conditions favorable for manufacturing growth.

Lower wage rates have been an important factor in the rapid increase in manufacturing employment in the southern states east of the Mississippi. Many new employers found it desirable to locate in this relatively low-cost labor market. Between 1950 and 1960 Arkansas, Florida, Mississippi, Tennessee and Virginia all had over a 20 per cent increase in manufacturing employment. (There were 14 other states in which industrial employment also increased by 20 per cent or more.) The average annual payroll per manufacturing employee in each of these states was less than \$4,000 in 1958, while in the industrialized states of the Seventh Federal Reserve District annual industrial payrolls averaged \$5,000 or more per worker, reflecting the importance of higher paying metal fabricating industries. The average earnings of factory workers in Illinois and Indiana were about \$5,200, in Michigan slightly over \$5,800 and in Wisconsin just over \$5,000.

New products in the "missile age"

The rapid development of new products—chemicals, drugs, computing machines, scien-

Manufacturing activity concentrated in states east of Mississippi and north of Ohio rivers but growth in this area slower than United States



tific instruments, electronic devices and missiles—has also affected the shifts in location of manufacturing. When a firm undertakes to introduce new products—often using different raw materials and production techniques as well as being oriented toward new markets—there is considerable freedom in selec-

tion of location for the plant, much more than when additional capacity is added for established products.

A number of firms producing new products has found that the old manufacturing belt provides a favorable environment for growth. Certain segments of the electronics industry

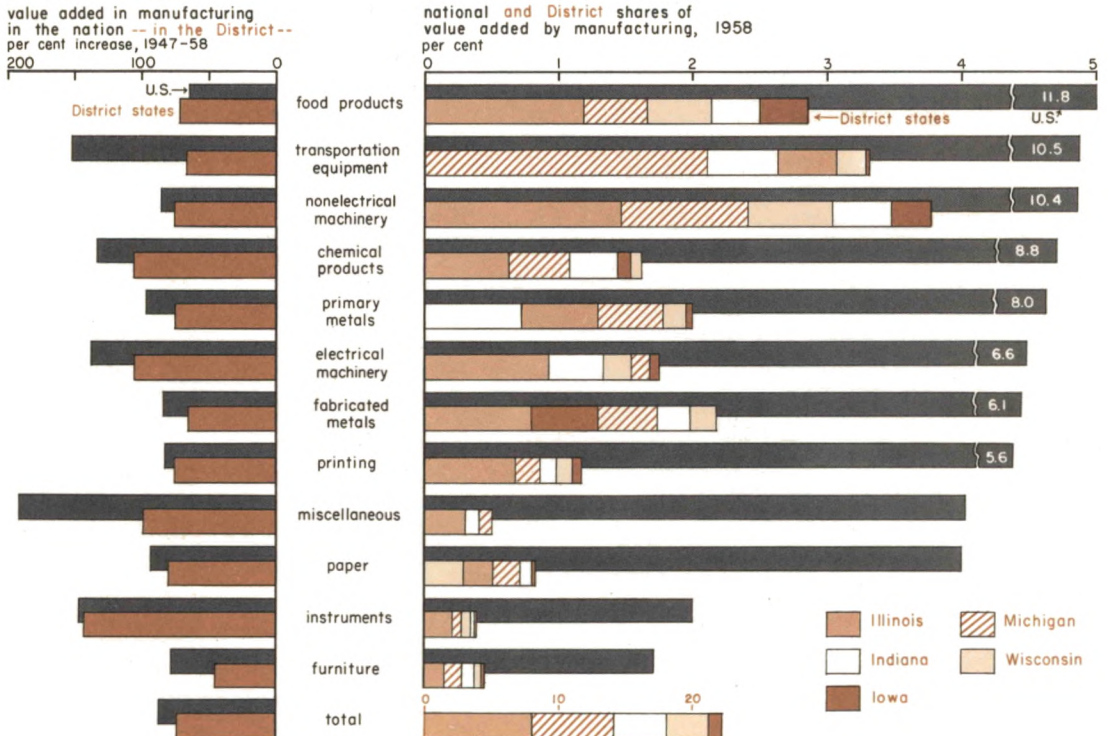
have undergone vigorous growth in New England and other eastern states. Detroit, according to a recent study of the Bureau of Labor Statistics, has over 11 per cent of national manufacturing employment in the business computer field, but such employment still constitutes a rather small part of the Detroit labor market. On balance, overall growth has been more rapid in those areas where the new and dynamic industries make up a substantial share of total manufacturing activity.

In Texas the availability of crude oil and advances in petrochemicals have provided

the base for rapid manufacturing growth. Unique advantages in terms of climate and location have enabled California and Florida to benefit from the increased defense emphasis on missiles.

This basic shift in the complexion of the national defense program has been an important factor in the comparatively slow growth of the manufacturing belt and, in particular, the East North Central states. With the advent of the missile, Government procurement of conventional defense products manufactured largely in Midwest plants has declined materially. During the Korean

Growth of manufacturing in Seventh Federal Reserve District has been slower than for the U.S. in most industrial lines



War nearly 29 per cent of defense procurement spending was for ordnance, vehicles and related equipment produced in quantity in the manufacturing belt, but in the first quarter of 1961 these items accounted for only 5 per cent of total defense outlays. On the other hand, spending for aircraft, missiles and electronics, relatively much more important outside the older manufacturing region, climbed from 52 per cent of total procurement expenditures during the Korean War to 84 per cent in the early months of 1961.

Seventh District performance

Among the Seventh District states, Illinois, Indiana, Michigan and Wisconsin lie within the older manufacturing area. In both employment and value added their growth in manufacturing has been below the national average in the last decade.

Iowa, located on the edge of the manufacturing belt, has experienced the highest growth rate in manufacturing of any District state. Between 1949 and 1958 value added in Iowa manufacturing doubled, an increase greater than that for the nation and greater than that of its neighbors, Minnesota and Missouri. Iowa's growth in manufacturing has been centered in food processing, agricultural machinery and certain types of metal fabricating and electrical machinery in which cost of transportation for either raw materials or finished products plays a relatively minor role.

Among the more highly industrialized states of the District manufacturing has grown the most rapidly in Indiana and Wisconsin. In the latter state growth has been broadly based, with the largest share of activity in the metal-using industries. Largely because of its drugs and airplane components, Indiana experienced an increase of 74

per cent in the value added by its manufacturing firms between 1949 and 1958, an increase somewhat larger than in the adjacent states.

In Michigan, buffeted by the dispersion of automobile production and reduced demand for its defense products, the value added by manufacturing rose only about 50 per cent, in contrast with an 86 per cent increase in the nation as a whole. Employment in manufacturing, for which data is available through 1960, fell 10 per cent from the level 10 years earlier while all other District states registered gains. The shift in defense procurement was especially important in Michigan. Although prime contracts awarded by the Department of Defense do not provide direct information on the actual production in the state (the contracts are reported for main office locations and do not reflect the distribution of subcontracts), they do give some indication of the shift in defense work away from Michigan. During the Korean War, firms located in Michigan received nearly 10 per cent of the prime contracts; in 1960 they received only 3 per cent.

Although growing less rapidly than a number of other areas, the District states make a large contribution to national manufacturing output, especially in the durable goods sector, including primary and fabricated metals, electrical and nonelectrical machinery and transportation equipment. The metal-using industries have found the area to be a favorable location. Firms using semifinished metal products as components or producing intermediate products for further fabrication often find it advantageous to be located near a large number of potential suppliers and customers. Many of the firms in the region require large volume to achieve economical production. The Midwest, because of its highly developed transportation

connections with other areas of the nation, is a favored location for this type of firm.

However, as manufacturing activity has grown in other regions the relative advantage of the Midwest location for many kinds of products has tended to slip. California, Texas and Colorado, for example, now also offer similar advantages of large numbers of customers and suppliers in a growing range of manufactured products.

The future in manufacturing growth

In recent years many cities and states have increased their efforts to attract manufacturing firms. The success of these efforts will depend in large measure upon such basic factors as population, skills of the labor force, size of the market, transportation and natural resources, schools and other community facilities as well as the over-all growth of manufacturing.

Prior to the 1950's manufacturing tended to grow faster than national income, but in the last decade it has progressed at a slower pace. This may be only a temporary development. However, changing patterns of consumption suggest that in the absence of a more rapid military build-up, or a major technological revolution, manufacturing is not likely to exceed national economic growth by as large a margin as in earlier years.

Fairly well stocked with durable goods, consumers are now spending more of their income on services—travel, recreation, medical care, education—and relatively less for the purchase of manufactured goods. Moreover, increased competition from industrialized nations abroad may slow the growth of American manufactured exports.

The desires of individual cities and states to expand employment through the acquisition of new firms will not, of course, be ful-

filled entirely. The total of these desires far exceeds the likely expansion of the manufacturing sector in the next decade. Consequently, some areas will be thwarted in their efforts to achieve economic growth. Under these conditions how are the Seventh District states likely to fare?

Changes in population, technology, transportation and other factors affecting the growth and location of manufacturing will continue to exercise important influences. But these forces cannot be evaluated accurately in advance. It is possible that the next round of major economic expansion may require important contributions from the metal-using firms in the manufacturing belt. Even if this does not occur, the Midwest should be able to compete with newer industrial areas for a share of expanding manufacturing activity. The forces making possible a broad dispersion of manufacturing activity are likely to remain strong. These will encourage greater diversification of activities in many areas including the manufacturing belt. The Midwest, with its large market and wide range of ancillary services, including financial and wholesale activities, should participate in the growth of new industries as well as those now firmly established in the area.

Business Conditions is published monthly by the FEDERAL RESERVE BANK OF CHICAGO. Subscriptions are available to the public without charge. For information concerning bulk mailings to banks, business organizations and educational institutions, write: Research Department, Federal Reserve Bank of Chicago, Box 834, Chicago 90, Illinois. Articles may be reprinted provided source is credited.