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FEDERAL RESERVE BANK OF CLEVELAND

CALL LOANS

The call loan is one of the oldest money market instruments; it was first introduced in the United States in the mid-1800s. Although the call loan is not currently one of the more important money market instruments, it was at one time not only the most important instrument, but was the chief source of secondary reserves for commercial banks.

The call loan represents short-term funds loaned by banks to securities brokers and dealers for the purpose of financing their customers' purchases of common stock. The securities purchased with the proceeds of the loan, in turn, become the principal collateral. The call provision allows termination of the loan by either lender or borrower on one-day notice. While customer borrowings from brokers are also on a call basis, they are excluded from the usual definition of the call loan.¹

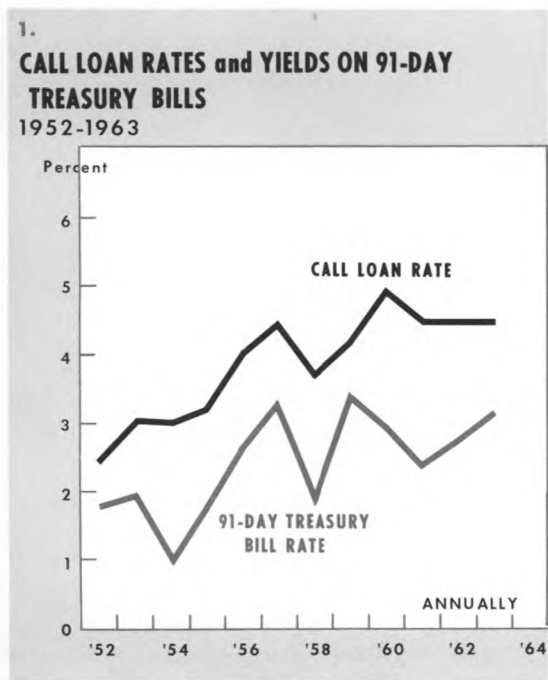
The bulk of call loan activity occurs in New York City because securities trading is con-

centrated there. For example, at the end of 1963 about one-half of the \$5.4 billion in commercial bank loans to brokers and dealers was carried by New York City banks.² The relative deemphasis of call loans in bank portfolios is reflected in the change in the percentage of total earning assets accounted for by call loans between 1929 and 1963. At the end of 1929 call loans represented 45

¹ Although call loans represent only a portion of total security credit, the two terms are often, and incorrectly, used interchangeably. Other sources of security credit are customer net free credit balances (funds left on deposit with brokers) and bank loans made to others than brokers and dealers for the purpose of carrying or purchasing securities. While bank loans to "others" are extensive, the call loan rate refers specifically to collateralized broker borrowings. Occasionally, security collateral loans are made on a time basis, but because of the dominance of the call provision, all brokers' loans are generally designated as the call money market. In addition, security credit often is extended to facilitate underwriting and distribution of new issues, overall operations of security dealers, and for a variety of reasons not necessarily related to the money market.

² These and other data included in this article, unless otherwise indicated, are from various issues of the *Federal Reserve Bulletin*.

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Note: Call loan rate refers to loans secured by customers' stock exchange collateral at N. Y. City banks. Yields on 91-day Treasury Bills refer to new issues.

Source of data: Board of Governors of the Federal Reserve System

percent of earning assets (\$8.1 billion) of New York City banks; at the end of 1963 the comparable figures were 8 percent of \$34.8 billion.

Although the call rate displays a secular relationship with other money market rates, it is not a particularly sensitive indicator of money market conditions. The behavior of the call loan rate during 1952-63 is plotted in Chart 1, where it is compared with the market yield on 91-day Treasury bills, which is the pivotal money market rate. As the chart shows, the bill rate fluctuates much more widely in response to changes in both economic and money market conditions.

Moreover, the call loan rate usually exceeds the bill rate by approximately one percentage point.

A clear indication of the relative insensitivity of the call loan rate has been demonstrated during the current economic recovery that began in 1961. The chart shows that the call rate has remained unchanged despite variation in other money market rates. This is shown quite clearly in Chart 2, where the range of yields on various interest rates during 1961-64 is presented.

The experience of the 1920's, however, would indicate that the demand for call loans is not closely related to the cost of this form of credit. As shown in Chart 3, despite the fact that the call loan rate rose dramatically between January 1927 and September 1929, there was an increase in the absolute amount of security loans outstanding as well as an increase in the ratio of security loans to total commercial bank loans. This experience indicates that restraint in the use of call loans would have to be achieved through a curtailment of demand for this form of credit rather than through an increase in cost.

HISTORICAL BACKGROUND

The call loan market developed in New York City around 1830. Call loans served as secondary reserves of large city banks partly because the United States did not have the developed Treasury bill or commercial bill markets such as existed in London.

After the termination of the Second Bank of the United States in 1836, country banks began to use banks in New York City and Chicago as reserve depositories. In turn the large city banks began to compete for the

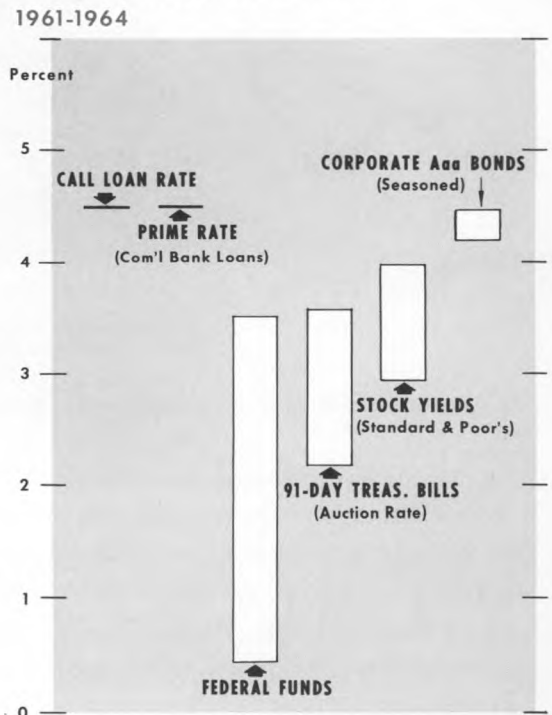
reserve balance of country banks by offering competitive interest rates. Because such deposits were subject to immediate withdrawal, city banks employed them primarily in the call loan market. Call loans were regarded as highly liquid because the collateral behind such loans could be sold quickly to obtain funds. By the end of the 19th century, approximately 50 percent of New York City bank loan portfolios were represented by call loans.

The relative liquidity of call loans was subjected to wide fluctuations primarily because of seasonal swings in rural economic activity. For example, farmers needing funds to facilitate harvesting or planting usually withdrew deposits and requested loans at country banks. These institutions, in turn, frequently found it necessary to draw on their correspondent balances in New York City and Chicago banks to meet the deposit drain and demands for credit. Since call loans constituted the secondary reserves of large banks, the call privilege was widely exercised in order to meet the withdrawals of banks. However, brokers and dealers were frequently unable to meet the calls on their loans and were forced to request that their customers, for whom the funds had been borrowed, repay the amount due on the securities purchased on margin. Because many customers were unable to meet the payments, the securities were sold to meet the call. Since calls were concentrated in short periods of time mass liquidations of securities and sharp declines in securities prices usually occurred. As a result, the financial system underwent severe pressures as the demands for credit far outstripped the amount of credit

available, and the value of securities declined sharply under repeated forced liquidations. In addition, the lack of liquidity and decline in security prices frequently resulted in bank failures, which further aggravated financial conditions. At times these pressures were so intense that financial panics resulted, e.g., in 1884, 1893, 1903 and 1907.

The Federal Reserve Act in 1913 provided facilities to member banks for alternative sources of liquidity to meet temporary deposit drains. This was done through the rediscounting of short-term business loans. However, call loans were not rediscounted by the

2.
RANGE of SELECTED INTEREST RATES

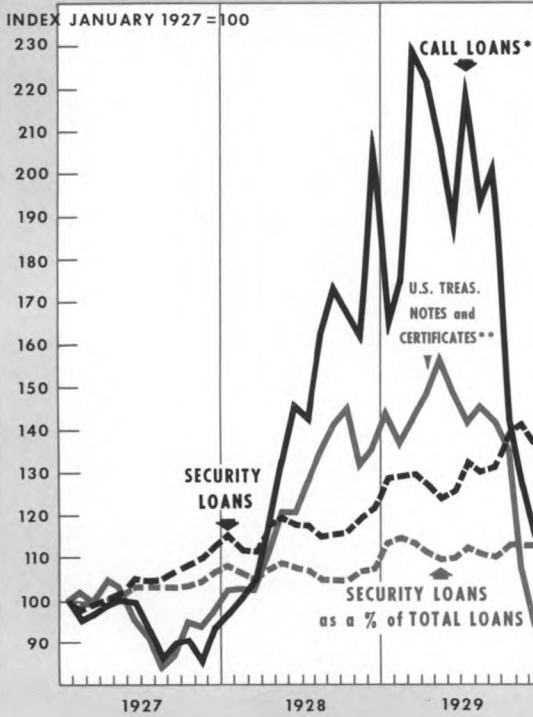


Note: 1964 rates as of July 10, 1964.

Source of data: Board of Governors of the Federal Reserve System

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3. INDEXES of SELECTED RATES 1927-1929



*daily average rate

**daily average rate; 6-9 month maturities used in some cases, 3-6 month maturities in most cases

Source of data: Board of Governors of the Federal Reserve System

Federal Reserve System, and the denial of rediscounting facilities for call loans resulted in a temporary demise of call loans as secondary reserves of banks. A surge in equity financing after World War I brought about a widespread return to using call loans. Portfolios of commercial banks thus began to include larger amounts of call loans during the 1920's. For example, between 1922 and 1929, brokers' loans held by commercial

banks rose from \$1.5 billion to \$8.5 billion. By September 1929 brokers' loans accounted for 44 percent of all member bank loans and 50 percent of New York City bank loans.

When stock values collapsed in late 1929, however, call loans were once again relegated to limbo. In many instances, call loans could not be repaid and the collapse of the market reduced the demand for such credit. In less than three years after October 1929, the volume of call loans dropped from \$8.5 billion to only \$335 million.

CALL LOAN REGULATION

It was clear in the early 1930's that the previous marked rise in the volume of call loans was closely related to the speculative rise in stock values. Consequently, following the collapse of the stock market in 1929, steps were taken to control the use of such credit. In 1931, the New York Clearing House Association prohibited its members from acting as call market agents for non-bank lenders. This was formalized by the Banking Act of 1933, which also permitted the Federal Reserve System to limit the percentage of a bank's capital that could be utilized for security loans. In addition, Federal Reserve banks were permitted to censor those commercial banks whose security loans were deemed excessive. Although these measures were intended to offset the supply or availability of security credit, they were not fully utilized.

The Securities Exchange Act of 1934 gave the Federal Reserve Board of Governors the authority to set margin requirements. In setting these requirements the Board of Governors specifically states what proportion

of the purchase price of securities the buyer must provide at the time of purchase. The balance, of course, may be borrowed. Margin requirements cover only the initial purchase and are not affected by changes in market value that occur later.

EFFECTIVENESS OF MARGIN REGULATION

Attempts to evaluate the effectiveness of margin regulation have resulted in varying interpretations. Most of the differences seem to center on the issues of (1) determining the aspects of security credit that should be considered most important and (2) determining the appropriate time lags. Analysis is further complicated by the inability to isolate the significance of margin changes from other factors within the context of a changing economy. In addition, the Federal Reserve System does not specify quantitative goals whenever it makes a change in margin requirements.

The following analysis attempts to relate margin changes to various aspects of stock market activity, customer credit, and broker credit. These aspects are examined at one-, three-, and six-month intervals before and after changes in margin requirements to determine individual performance and response. Individual totals were computed for each concept for each time period and for all 18 margin changes that occurred from 1934 to 1963; the figures were then put on an index basis. To lessen the influence of disproportionate changes that appear immediately before and after a margin change, the six-month period prior to the change was used as an index base (see Chart 4). Margin

increases and decreases were examined separately to determine whether direction of change in margin requirements exerted significant influence on stock market activity. It should be remembered, however, that the following analysis cannot fully reflect all of the factors that may have influenced the selected variables.

Generally, reductions in margin requirements have tended to reverse prechange patterns more than have increases in margin requirements. As shown in Chart 4, six months after margin reductions, all six series had turned up, while in the case of margin increases, two series had declined, one remained virtually the same, and three maintained an upward movement.

In both increases and decreases, net customer debit balances (C on the Chart) appear to have been most responsive, with the index returning to the level of twelve months earlier (100) six months after margin decreases, and remaining virtually unchanged after margin increases. The other component of customer credit, bank loans to others than brokers and dealers, showed a similar pattern after margin reductions, but continued upward following margin increases. Broker credit (E and F on the Chart) behaved approximately the same as bank loans to "others" although not in the same magnitudes.

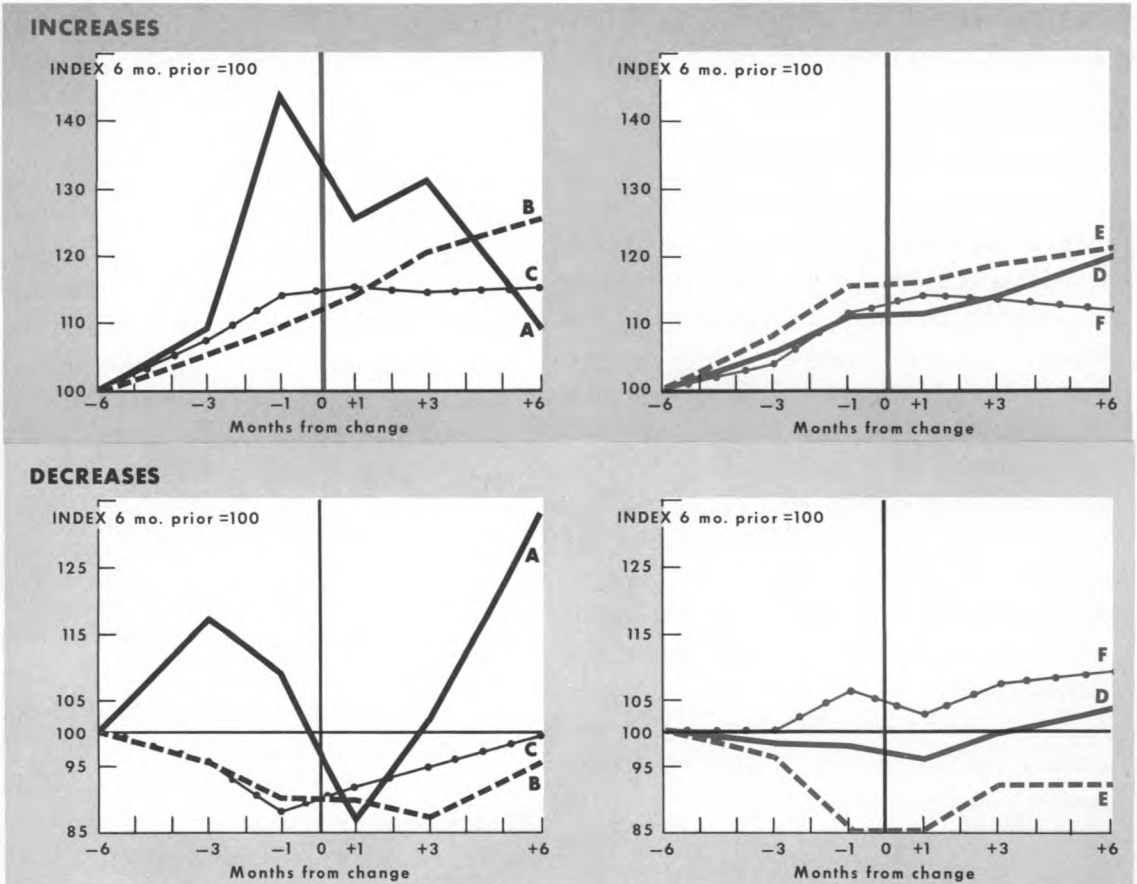
Stock market activity, expressed both as volume and prices on the New York Stock Exchange, displayed perhaps the most volatile behavior of the six series. In the case of margin decreases, stock volume increased markedly from six months to three months prior to margin changes, then declined until

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4.

Indexes of Stock Market Activity, Customer Credit, and Broker Credit

Specific Monthly Periods Prior and Subsequent to Stock Margin Changes, 1934-1963



- A=Volume on the New York Stock Exchange, daily average for the month in which the lag fell.
- B=Standard and Poor's Index of Stock Prices. Original 90-stock indexes changed to 500-stock indexes in 1957.
- C=Net customer debit balances.
- D=Bank loans to others than brokers and dealers for the purpose of purchasing or carrying securities. Average of weekly Wednesday figures from weekly reporting banks. No data prior to the 1945 margin change.
- E=Money borrowed on total collateral (includes U.S. securities) from banks and trust companies and other lenders for the purpose of purchasing and carrying securities. No data available prior to August, 1935. In 1950, category changed to only commercial banks and in 1954, changed to weekly reporting member banks.
- F=Customer net free credit balances.

Sources of data: Barron's; Board of Governors of the Federal Reserve System

one month after changes, rising markedly thereafter.

Prior to margin increases, stock volume rose appreciably, declined one month after changes, rose slightly at three months, and dropped substantially at six months. Stock prices showed a tendency to reverse trend after margin reductions, but usually maintained upward movement following margin increases.

Net customer debit balances are the most important factor in determining the adequacy of existing margin requirements. As Chart 4 shows, these balances have displayed much sensitivity to changes in margin requirements. This reflects one of the purposes of the Securities Exchange Act, which was to influence the amount of credit utilized for stock purchases rather than the level of stock prices or the volume of trading.

The past 30 years have witnessed an almost continuous rise in stock prices and investor participation. The Securities Exchange Act provides that margin regulation generally applies to stocks traded on organized exchanges, e.g., the New York Stock Exchange. Thus, the existence of a large over-the-counter market, where a larger number of issues are traded, provides a possible means of circumventing margin requirements.

SUMMARY

The call loan in terms of dollar volume is quite clearly one of the least important money market instruments. However, in addition to its uniqueness as one of the oldest of existing instruments, the call loan continues to play an important role in the daily operations of organized securities markets. As such, its chief contribution is in the form of the liquidity it provides for securities transactions.

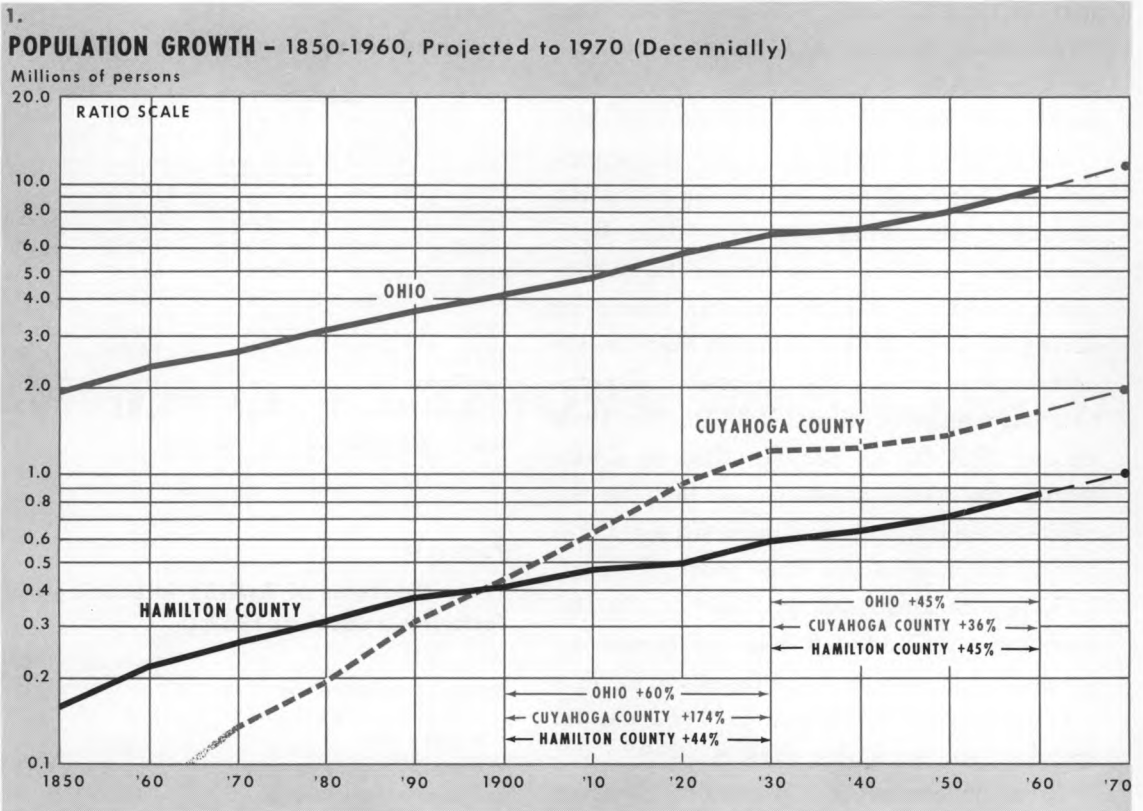
AN ECONOMIC PROFILE OF CINCINNATI

Cincinnati is the third largest city in the Fourth Federal Reserve District. It is a community whose heritage reveals a deep involvement in the early history of the Midwest. While in recent years Cincinnati certainly has not been immune to economic strain, it has on balance been characterized more by a relatively high degree of stability and general prosperity than have most other centers in the Fourth District.

To understand the present-day structure of Cincinnati's economy it is necessary to have some appreciation of the early development of the community. Cincinnati, the largest city in Ohio during the 1800's, can no longer be classified as a booming community. In contrast, a more appropriate description of the city would make reference to its stability and economic maturity. Throughout the present century to date, population in Cincinnati

(Hamilton County) has grown at a remarkably steady pace, quite unlike the pattern for Ohio as a whole and for Cleveland (Cuyahoga County), the largest city in Ohio. As depicted in Chart 1, Cincinnati's population grew 44 percent in the first 30 years of the present century, and it continued at virtually the same growth rate in the second 30 years. In contrast, population in Cleveland grew 174 percent, or more rapidly than in Cincinnati between 1900 and 1930, and then slowed substantially to a 36 percent increase in the second 30 years.

Throughout the approximately 175 years of its existence, Cincinnati's business enterprise has been attuned to a variety of utilitarian needs. Much of the present character of the economic base of Cincinnati is an outgrowth of the early days of the community when economic activity was geared to satisfy



Sources of data: State of Ohio; U. S. Department of Commerce

practical needs of the pioneers of the Midwest. Food and transportation then were most pressing, and early settlers of Cincinnati set for themselves the task of supplying those necessities. Today the major manufacturing industries in Cincinnati are still engaged in food processing and in producing transportation equipment, along with their respective offshoots, the manufacture of chemicals and the production of machine tools and fabricated metals. The industrial mix—a blend of staple consumer goods industries and capital goods industries—has been a favorable one in that it promoted stability while allowing for orderly and well-balanced growth.

MANUFACTURING INDUSTRIES

The year-to-year record of the dollar amount of *value added* by all manufacturing in Cincinnati is one broad measure of the city's economy. As shown in Table I, value added in Cincinnati increased on a year-to-year basis in four of the six years, 1957-62, inclusive, whereas value added in Ohio rose in only two of those years. Although both of the year-to-year gains in Ohio were proportionately larger than the simultaneous increases in Cincinnati, over the entire six-year period value added showed a net rise of nearly 18 percent in Cincinnati as against 13 percent in Ohio. Moreover, in the recession

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years of 1958 and 1961 — the only years when value added declined on a year-to-year basis in Cincinnati — the decreases were proportionately smaller for that city than for Ohio.

The trend of investment in plant and equipment by Cincinnati's manufacturing industries has been somewhat less favorable. Both Cincinnati and Ohio, like most of the nation, experienced a peak in *capital spending* during the mid-1950's, although there was a difference in timing; the top peak in Cincinnati was reached during 1957-58 rather than during 1956-57 as was the case in Ohio. More important, however, is the lag in capital spending in both Cincinnati and Ohio during the most recent three years of report, 1960-62, as illustrated in Chart 2. Capital spending in Cincinnati has not shown an appreciable recovery since the sharp decline experienced in 1959, and in 1962 capital spending was no higher than in 1955.

Three measures of Cincinnati's leading manufacturing industries are shown in Table II along with the relative importance of the same industries in Ohio. The first three — transportation equipment, chemicals, and food products — not only rank high in Cincinnati, but are of considerably more importance there than in Ohio as a whole. The last two industries named — nonelectrical machinery and fabricated metals — are important in Cincinnati, but are relatively more important in Ohio.

TRANSPORTATION EQUIPMENT

At all stages of its development, the transportation industry has played a prominent role in Cincinnati.

Since the founding of Cincinnati the Ohio River has served as one of its principal assets.

TABLE I
Value Added by Manufacture, 1956-1962

	Cincinnati		Ohio	
	Current Dollars (millions)	Percent Change from Previous Year	Current Dollars (millions)	Percent Change from Previous Year
1956	\$1,596		\$12,928	
1957	1,605	+ 1.6%	12,757	- 1.3%
1958	1,485	- 7.5	11,473	-10.1
1959	1,737	+17.0	13,857	+20.8
1960	1,769	+ 1.8	13,830	- 0.2
1961	1,731	- 2.1	13,303	- 3.8
1962	1,863	+ 7.6	14,578	+ 9.6
Net Change 1956-1962		+17.7%		+12.8%

Source: U. S. Department of Commerce

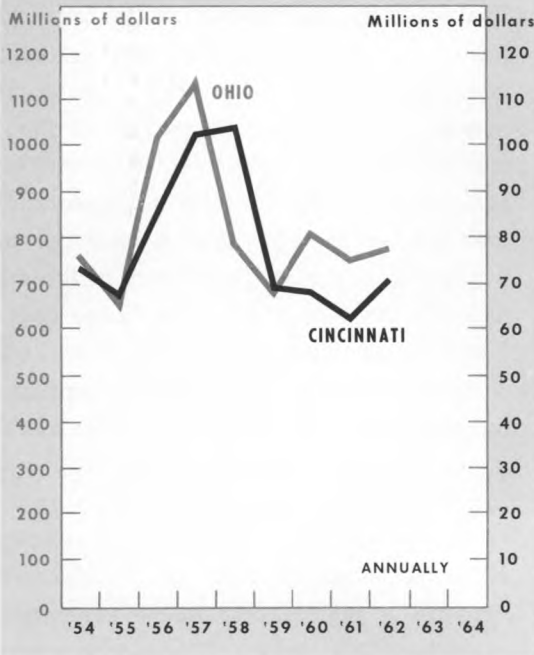
TABLE II
Three Measures of Activity in Leading Manufacturing Industries, 1962

	Cincinnati	Ohio
Share of Value Added by All Manufacturing Industries provided by:		
Transportation Equipment	21%	15%
Chemicals and Products	19	6
Food and Kindred Products	12	7
Nonelectrical Machinery	8	13
Fabricated Metals	7	9
Five-Industry Total	66%	51%
Share of Capital Spending by All Manufacturing Industries provided by:		
Transportation Equipment	13%	10%
Chemicals and Products	20	8
Food and Kindred Products	13	6
Nonelectrical Machinery	6	10
Fabricated Metals	6	9
Five-Industry Total	58%	42%
Share of Total Employment in All Manufacturing Industries provided by:		
Transportation Equipment	16%	13%
Chemicals and Products	8	4
Food and Kindred Products	11	7
Nonelectrical Machinery	11	13
Fabricated Metals	9	9
Five-Industry Total	54%	46%

Source: U. S. Department of Commerce

2. CAPITAL SPENDING

Current Dollars



Source of data: U. S. Department of Commerce

At the time the western migration was taking place the Ohio River served as an early "expressway", providing the cheapest and fastest east-west transportation available. A "north-south throughway"—the Ohio canal—was under construction before many years had passed to open up trade with Lake Erie and communities along the way.

In the first half of the 1800's, one of Cincinnati's major industries was the building of steamboats, with approximately one of every three steamboats plying the Ohio and Mississippi waterways in the 19th century having been built in Cincinnati. After the steamboats came the railroads. Still later came auto manufacturing, and today the

area's largest manufacturing employer is a jet engine plant.

Measured by either employment or value added to output, the building of transportation equipment is the leading manufacturing industry in Cincinnati. (See Table II.) According to the latest Annual Survey of Manufactures, there were 23,329 persons employed in the manufacture of transportation equipment in Cincinnati during 1962, or 16 percent of total manufacturing employment. This is a somewhat larger proportion than the Ohio average of 13 percent.

Moreover, as illustrated in Chart 3, employment in Cincinnati in the transportation equipment industry showed a net rise between 1954 and 1962, an unusual performance in a period characterized by shrinkage in manufacturing employment throughout the United States. It should be noted, however, that employment cutbacks in transportation equipment industries since the 1959 peak have been more pronounced in Cincinnati than in the state as a whole.

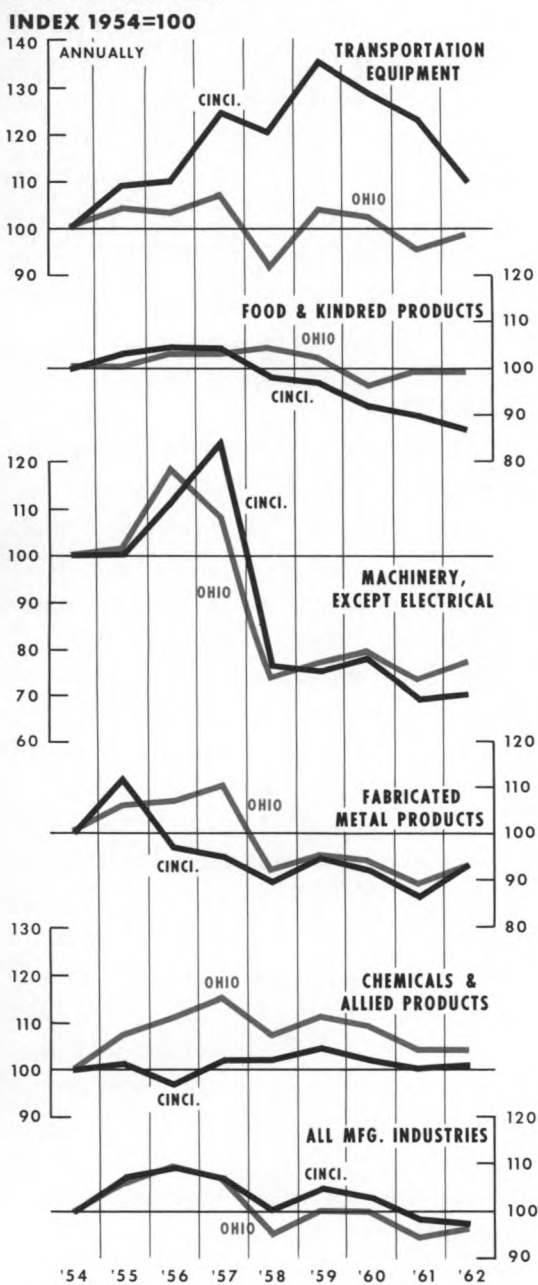
As indicated in the top section of Table III, production of transportation equipment employed 2,200 more persons in 1962 than in 1954, a net *increase* of 10 percent. This contrasts with the corresponding net *decline* of 2 percent for the same industry in Ohio as a whole, and it also contrasts with the net drop of 3 percent in total manufacturing employment in Cincinnati during the same period.

Increases in plant and equipment expenditures by the transportation equipment industry accounted for a good share of the capital goods boom of the 1950's, both in Ohio and in Cincinnati. In Ohio capital

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3. TOTAL MANUFACTURING EMPLOYMENT Selected Industries

INDEX 1954=100



Source of data: U. S. Department of Commerce

spending by this industry reached an annual peak of \$229 million in 1956, or 23 percent of the total by all manufacturing industries. That was a very substantial share, to be sure, but in Cincinnati in the same year, capital investment by the transportation equipment industry amounted to 26 percent of the all-manufacturing-industry total, an even greater share than in Ohio. Moreover, expenditures rose further in Cincinnati during the next two years, reaching 39 percent of the city's industry total in 1957 and 47 percent in 1958. In subsequent years, however, capital spending by the transportation equipment industry was at sharply reduced levels so that investment in 1962 was 40 percent below the 1954 figure. Nevertheless, the large-scale capital investment over the three-year span 1956-58, suggests that the transportation industry is maintaining its well-entrenched position in Cincinnati. This is corroborated by the 49 percent increase between 1956 and 1962 in value added by manufacture (see midsection of Table III), which was the largest gain by any of Cincinnati's top five industries, as well as by the 10 percent increase in employment (see top section of Table III).

MACHINE TOOLS AND FABRICATED METALS

The fact that there are a number of major machine tool companies located in Cincinnati is not the result of chance. The early location of machine tool manufacturers and other nonelectrical machinery producers in Cincinnati was a logical outgrowth of steam-boat building. The presence of engineers, mechanics, and metal workers who were

employed in the construction of steam-powered river craft encouraged the establishment of a variety of concerns in the field of machine tools and related products.

Both the nonelectrical machinery and the fabricated metals industries are important in the Cincinnati industrial complex. The 1962 Annual Survey of Manufactures shows the proportion of fabricated metal workers in total manufacturing employment to be 9 percent in both Cincinnati and Ohio (see bottom section of Table II). For nonelectrical machinery the proportion was 13 percent in Ohio and 11 percent in Cincinnati. (Although neither industry is as important in Cincinnati as in Ohio as a whole, Ohio ranks high in these fields.)

Employment trends in each of these industries are shown for Ohio and Cincinnati in the third and fourth panels of Chart 3 and in Table III. The 30 percent drop in employment in Cincinnati's nonelectrical machinery industry between 1954 and 1962, which involved a net loss of about 6,600 jobs, was the largest decline reported for any of the community's major manufacturing industries. As the chart indicates, a similar reduction in employment in the nonelectrical machinery industry occurred in Ohio, but the increase in employment in this industry that occurred during 1962 was not reflected in the Cincinnati totals.

The employment trend in fabricated metal products industries was much the same in Cincinnati and in Ohio, down 7 percent in each case for the eight-year period. For Cincinnati, the reduction meant a net loss of about 1,000 jobs. Along with the sharp employment losses in Cincinnati's nonelectrical

machinery industry, the simultaneous 57 percent drop in capital spending is particularly revealing, as is the 38 percent decrease between 1956 and 1962 in value added by manufacture (see Table III). The corresponding statewide trends in the nonelectrical machinery industry were also in a downward direction but were of more moderate proportions. A comparison of changes in the various measures and in the various industries, for both Cincinnati and Ohio, appears in Table III.

TABLE III
Three Measures of Change in Leading Manufacturing Industries

<u>Industry</u>	<u>Cincinnati</u>	<u>Ohio</u>
Change in Total Employment by Industry, 1954-1962		
Transportation Equipment	+10%	- 2%
Food and Kindred Products	-13	- 1
Nonelectrical Machinery	-30	-23
Fabricated Metals	- 7	- 7
Chemicals	+ 1	+ 4
ALL MANUFACTURING INDUSTRIES	- 3	- 4
Change in Adjusted Value Added* by Industry, 1956-1962		
Transportation Equipment	+49%	+40%
Food and Kindred Products	+ 7	+42
Nonelectrical Machinery	-38	-17
Fabricated Metals	+17	+ 7
Chemicals	+47	+31
ALL MANUFACTURING INDUSTRIES	+17	+13
Change in Capital Spending* by Industry, 1954-1962		
Transportation Equipment	-40%	-36%
Food and Kindred Products	+ 5	+14
Nonelectrical Machinery	-57	-39
Fabricated Metals	- 5	+63
Chemicals	+55	+12
ALL MANUFACTURING INDUSTRIES	- 3	+ 2

*In Current Dollars

Source: U. S. Department of Commerce

FOOD AND KINDRED PRODUCTS

The food industry has been an important part of Cincinnati's economic structure since its earliest days. Pioneers passing down the Ohio River to settle farther west usually stopped to replenish supplies at Cincinnati. As farms in the Ohio Valley began to flourish, they marketed their meat animals, especially hogs, at Cincinnati. Thus a meat-packing industry was established in Cincinnati and it grew to such prominence that the town was nick-named "Porkopolis". Thus launched into early importance, food manufacturing has maintained a strong position in Cincinnati down to the present time.

In 1962, total employment in the manufacture of food and kindred products numbered 15,655, or nearly one-fifth of all food manufacturing employment in Ohio and 11 percent of total manufacturing employment in Cincinnati. On a statewide basis, food manufacturing in 1962 accounted for less than 4 percent of all manufacturing employment.

In recent years, however, employment in food manufacturing in Cincinnati has been on the decline, showing a loss of 2,300 jobs in eight years. Moreover, it has been declining faster in Cincinnati than in Ohio. The second panel of Chart 3 depicts the steady year-to-year declines since 1957. As shown in the top section of Table III, employment in the food industry declined 13 percent in Cincinnati between 1954 and 1962, while comparable employment in all of Ohio dropped only 1 percent.¹ Changes in value added by manufacture and in capital spending in the

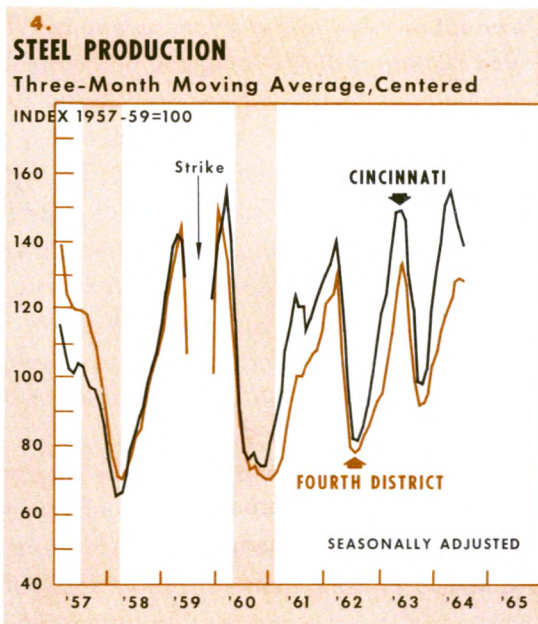
food processing industry in Cincinnati have also fallen short of statewide trends in recent years (see Table III), along with the decline in employment. If these trends should continue in an industry that is relatively immune to cyclical changes in business activity, it would tend to reduce Cincinnati's resistance to cyclical swings.

CHEMICALS

The development of the chemical industry in Cincinnati was a direct offshoot of food processing, particularly meat packing. Soap and fertilizer, as by-products of meat packing, were the chief products. Today the field has broadened to include modern detergents, pigments, plastics, drugs, toilet preparations, and other items. Many of the community's chemical products are well-known household articles and much of the output goes directly into consumer markets.

In 1962, employment in the manufacture of chemicals and chemical products constituted 8 percent of total manufacturing employment, or twice the proportion in the state of Ohio. The 11,415 chemical industry employees in Cincinnati amounted to one-fourth of the Ohio total for the same industry. In view of its importance in the local economy, the chemical industry in Cincinnati has contributed importantly to the stability of the area as is indicated by the next to last panel of Chart 3. At the same time, employment in the industry has grown a bit faster elsewhere in Ohio than it has in Cincinnati. Employment figures show a 4 percent gain between 1954 and 1962 in Ohio as against a corresponding increase of less than 1 percent in Cincinnati. (See Table III, top section.)

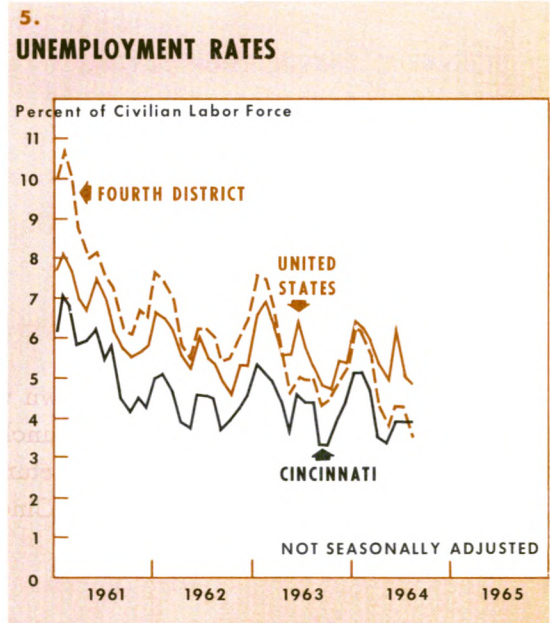
¹ See: "Industrial Development in Ohio—The Food Processing Industry," *Economic Review*. Federal Reserve Bank of Cleveland, Ohio. July 1964.



Source of data: American Iron and Steel Institute

As measured by value added in manufacture, the chemical industry in Cincinnati accounted for one-third of the Ohio total. Between 1956 and 1962, value added increased 47 percent, or somewhat more than the corresponding 31 percent increase in Ohio. (See midsection of Table III.)

The chemical industry spent more for capital improvement in Cincinnati in the three years 1960-62 than any other single industry. The figures are \$11.5 million in 1960, \$16.4 million in 1961, and \$13.8 million in 1962, representing 17 percent, 26 percent, and 20 percent, respectively, of total capital spending by all of Cincinnati's manufacturing industries in those years. In 1962, capital investment by Cincinnati's chemical industry soared to a level 55 percent above the amount spent eight years earlier while the



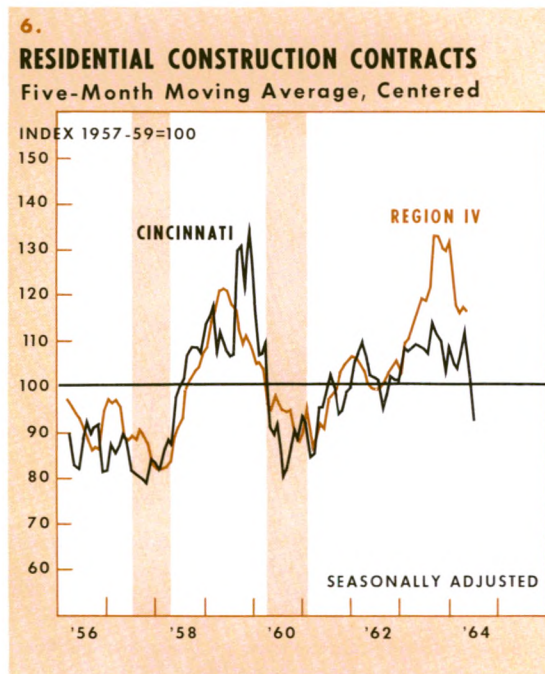
Sources of data: Ohio Bureau of Unemployment Compensation; Pennsylvania Employment Service; U. S. Department of Labor

corresponding increase in all of Ohio was only 12 percent.

OVERALL VIEW OF MANUFACTURING INDUSTRIES

Value added by all manufacturing industries increased 17 percent in Cincinnati between 1956 and 1962, but only 13 percent in Ohio. This development underscores the suggestion that the Cincinnati manufacturing complex as a whole is not losing ground in relation to the state, although it is undergoing changes in its makeup.

While average earnings of manufacturing workers in Cincinnati tend to be on the low side as compared with other Fourth District cities (see Table IV), this circumstance may be offset by relatively low rates of overall unemployment. As illustrated by Chart 5, rates



Sources of data: F. W. Dodge Corporation; Federal Reserve Bank of Cleveland

of unemployment have been consistently lower in Cincinnati than in the District or the U. S.

As Table III shows, the employment declines of 30 percent, 13 percent, and 7 percent in the nonelectrical machinery, food products, and fabricated metals industries, respectively, were greater than the average 3 percent decline for all manufacturing industries within the area. And in two of the three, food and nonelectrical machinery, the declines were proportionately larger in Cincinnati than in Ohio. Altogether, these three leading manufacturing industries contributed a loss of nearly 10,000 jobs in the 1954-62 period.

In two of the industries — food and nonelectrical machinery — employment losses appear to be roughly consistent with changes in the

amount of value added by manufacture. This would suggest that automation and technology were not the major causes of job declines; instead it indicates employment declines reflected either a reduction in output, or, in the case of the food industry, a lack of vigorous growth. Thus, in nonelectrical machinery, where employment dropped 30 percent, value added declined even more — by 38 percent. In food products, where employment declined 13 percent, value added increased only 7 percent.²

Despite the substantial setbacks in some industries, total manufacturing employment in Cincinnati was reduced by only 3 percent, or 4,488 persons, between 1954 and 1962 while in Ohio the comparable proportionate decline was 4 percent. In addition to the 2,300 employment increase in transportation and chemicals (mainly the former) in Cincinnati, it is evident that other manufacturing industries have been filling part of the gap. Some of these are apparently smaller industries and detailed Census data are not available as yet to pinpoint them. It is known, however, that there have been employment increases in the production of electrical machinery and in rubber and plastic products.

Moreover, some manufacturing industries of long standing, even though not among the top five in the community, have done well. One of these is the steel industry. Most of the steel mills in the Cincinnati area are in Butler County, which is adjacent to the Cincinnati

² Since the value added figures are expressed in dollars, not adjusted for price differences in the years under review, it may be assumed that the real change in value added, if it could be accurately measured in constant dollars, would be somewhat less favorable than is shown here.

metropolitan area.³ Annual production during 1957-59 averaged about 4 million tons, or about one-fifth of the leading Pittsburgh-Wheeling area. However, it is only slightly smaller than the Cleveland-Lorain district (which averaged 5 million tons per year in 1957, 1958, and 1959) and is of considerable importance in the Cincinnati metropolitan economy. As Chart 4 shows, the index of steel production in Cincinnati has quite regularly exceeded that of the entire Fourth District.

CONSTRUCTION

The behavior of construction, as reflected in construction contracts, is depicted in Charts 6 and 7. Until mid-1963, the volume of *residential construction* in Cincinnati followed closely the pattern of Region IV (defined as Ohio, Kentucky, West Virginia, and western Pennsylvania.)⁴ There has been a sharp cleavage in the past ten months, however, as volume dropped almost to the 1957-59 level in the Cincinnati metropolitan area while leveling off at record levels in the region as a whole.

Nonresidential construction was relatively brisk in Cincinnati during the last half of 1961 and the first half of 1962, but has persisted at a low level for much of the time since then except for a brief spurt in the early part of 1964. Unlike residential building, the volume of nonresidential construction has

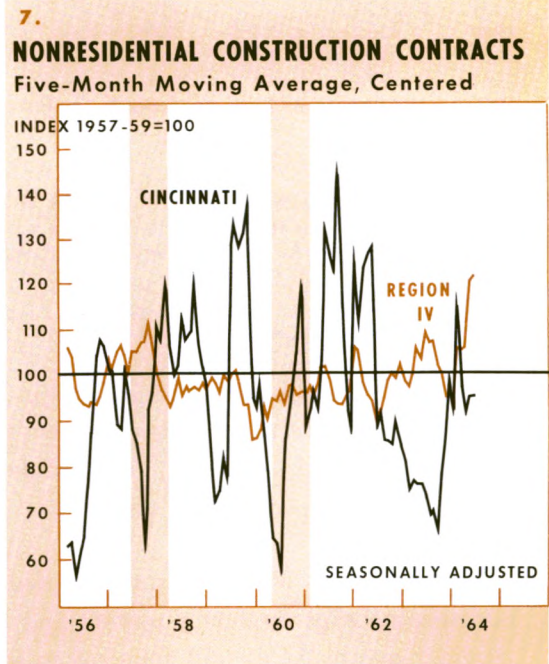
³ The Cincinnati metropolitan area is defined as Hamilton County, Ohio, and Campbell and Kenton Counties, Kentucky.

⁴ Construction contracts are compiled by the F. W. Dodge Corporation and are based on building permits and other information. Seasonal adjustment and computation of the moving averages shown in the chart has been done by the Federal Reserve Bank of Cleveland.

shown no sign of long-term growth for a number of years. In this connection, it may be recalled that capital spending by manufacturing industries (which includes expenditures for both plant and equipment) was relatively low in Cincinnati during the years 1959-1962.

OTHER INDICATORS OF ECONOMIC ACTIVITY

Business Loans. The use of bank credit is often taken as an indicator of general business conditions in a community. Business loans outstanding at weekly reporting member banks are plotted on Chart 8 in the form of indexes for Cincinnati and for the Fourth District, each based on its respective average for the period July through December



Sources of data: F. W. Dodge Corporation; Federal Reserve Bank of Cleveland

ECONOMIC REVIEW

TABLE IV
Average Gross Earnings of Production Workers
In Manufacturing Industries, August 1964

	Average Weekly Earnings	Average Hourly Earnings
Akron	\$135.17	\$3.25
Youngstown-Warren	133.12	3.22
Dayton	130.41	3.08
Cleveland	125.71	2.98
Toledo	122.89	2.95
OHIO	121.11	2.90
Canton	120.25	2.95
Columbus	114.35	2.76
Cincinnati	113.20	2.72

Source: Ohio Bureau of Unemployment Compensation

TABLE V
Personal Savings*

	Cincinnati		Ohio	
	at Yearend (millions)	% Change from Year Earlier	at Yearend (millions)	% Change from Year Earlier
1959	\$ 760.2		\$ 8,131.8	
1960	830.7	+ 9.3%	8,747.6	+ 7.6%
1961	911.6	+ 9.7	9,533.0	+ 9.0
1962	987.9	+ 8.4	10,503.8	+10.2
1963	1,042.4	+ 5.5	11,570.8	+10.2
Net Increase 1959-1963		+ 37%		+ 42%

*Includes the total of savings deposits of individuals at commercial banks and total assets of insured savings and loan associations. Not adjusted for change in number of reporting institutions.

Source: Federal Reserve Bank of Cleveland; Federal Home Loan Bank of Cincinnati

1959. Early in 1960, the Cincinnati index moved above the District index. However, it dropped below in late 1962, rose swiftly in 1963, then dropped below again in early 1964.

Bank Debits. While no single series of business statistics depicts a perfect and accurate image of the overall economy in Cincinnati, the trend of bank debits—which represents total check-writing activity at

Cincinnati banks—comes close to synthesizing the net impressions gained from a variety of business series. Although roughly in line with District-wide trends, bank debits in Cincinnati show more stable growth. As shown on the chart, on an index basis with the 1957-59 average equal to 100, bank debits in Cincinnati advanced slightly during the recession year 1958 while the District index dropped five points. And in the recession year of 1961, even though there was only a slight discrepancy between the Cincinnati and District indexes, the difference was in favor of the Cincinnati series. On the other hand, in 1960 and in brisk periods such as 1962, 1963, and 1964, the gain was less in Cincinnati than in the District.

Personal Savings. Available information shows that the growth of personal saving in Cincinnati slowed in 1962 and again in 1963, and as a result has not kept up with statewide increases. At yearend 1963, total savings in Cincinnati showed a 5.5 percent increase from the year-earlier level as compared with a 10.2 percent gain in the Ohio total (see Table V). In 1960 and 1961, however, personal savings in Cincinnati had posted gains of 9.3 percent and 9.7 percent, respectively, as against corresponding increases of only 7.6 percent and 9.0 percent in Ohio.⁵

Retail Sales. Department store sales and sales of automobiles have expanded more in Cincinnati than they have in the Fourth District during recent years. The difference is substantial in the case of department store trade and the margin has been widening, as

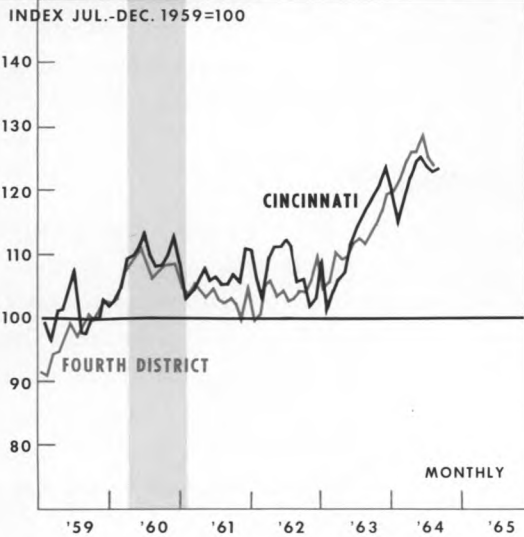
⁵ "Spotlight on Savings Flows," *Economic Review*. Federal Reserve Bank of Cleveland, Ohio. July 1964.

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OTHER INDICATORS of ECONOMIC ACTIVITY

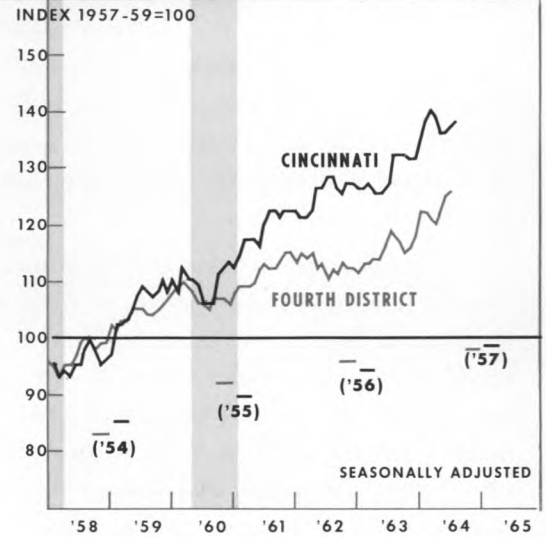
BUSINESS LOANS

Weekly Reporting Member Banks

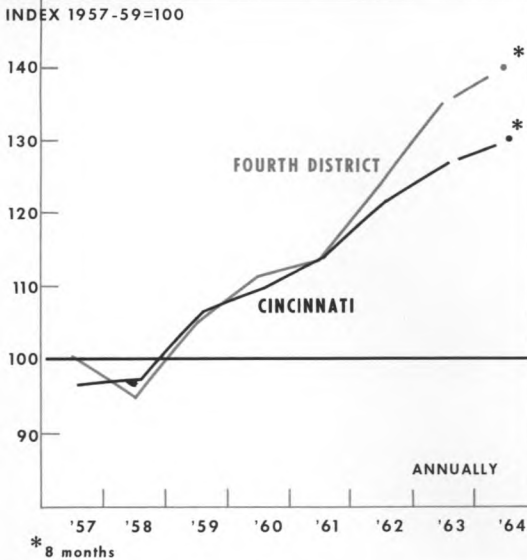


DEPARTMENT STORE SALES

Three-Month Moving Average, Centered

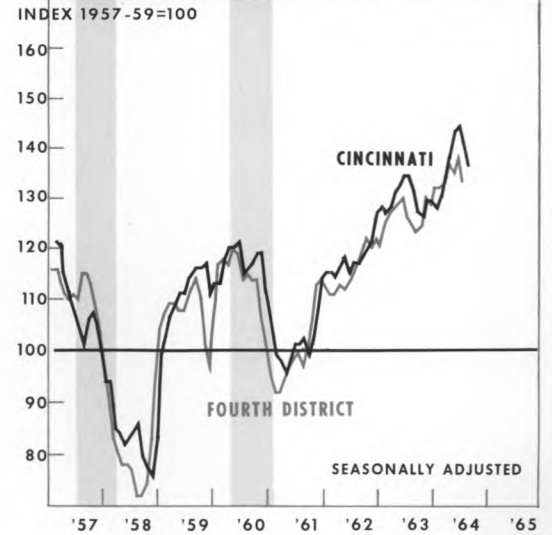


BANK DEBITS



AUTO SALES

Three-Month Moving Average, Centered



ECONOMIC REVIEW

Chart 8 indicates. During the first quarter of 1960, the seasonally adjusted index of department store sales in Cincinnati averaged 112 percent of the 1957-59 base period average, or 3 points higher than the 109-level reported for the District. Four years later, in the first quarter of 1964, there was an 18 point difference: Cincinnati had moved up to 140 percent of the base period average while the District had advanced only to 122.

In the case of auto sales, the difference is less pronounced, but it exists, as close inspection of the bottom panel of Chart 8 reveals. No Fourth District figure is available for comparison, but the volume of new passenger car sales in the three largest cities (Pittsburgh, Cleveland, and Cincinnati) have been combined to serve as an indicator of

District trends. With only a few exceptions, the seasonally adjusted monthly index of auto sales in Cincinnati has been moderately above the three-city index since mid-1958. There is no strongly marked indication of a widening margin, however, such as is apparent in department store sales.

SUMMARY

Cincinnati has exhibited a healthy growth, with many barometers of local business activity exceeding the same measures for Ohio and the Fourth District. The fact that Cincinnati was able to undergo a structural rearrangement in its industrial complex without experiencing any reduction in the pace of economic activity is a tribute to the strength of the city's economy.

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