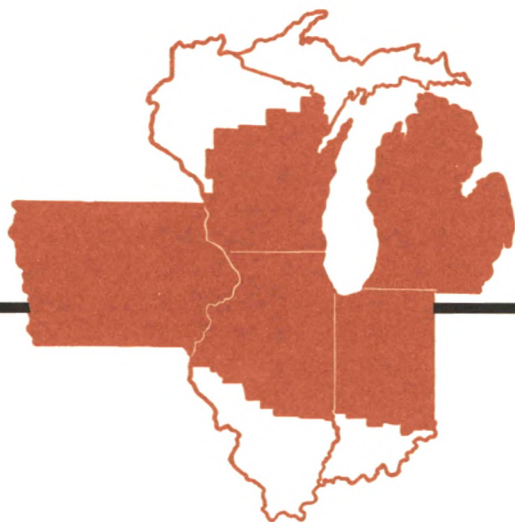


*A review by the* **Federal Reserve Bank of Chicago**

# Business Conditions

**1969 March**



## **Contents**

Autos and trucks— output, sales, and credit	2
Ownership of demand deposits at large Chicago banks	10

# Autos and trucks— output, sales, and credit

Activity in the auto industry is being watched closely. Because of its size, the industry always commands attention. But its production and sales are being watched especially closely now for signs that restrictive monetary and fiscal policies have begun to cool the inflationary boom. Evidence now available is inconclusive but suggests some easing of pressures on the nation's resources from this vital sector.

New cars and trucks accounted for more than 10 percent of all goods purchased in this country last year, and more than 25 percent of all durable goods. Both are only slightly higher proportions than the average for the past decade.

But after strong sales following the introduction of 1969 models last fall, demand for passenger cars seems to have started slipping in November. As inventories of new cars rose to record levels in January, some manufacturers announced reductions in output schedules for February and March.

The demand for trucks, on the other hand, appears to have remained near peak levels, especially for heavier models, as the general

trend in business expenditures for machinery and equipment continues upward.

The demand for passenger cars follows a pronounced seasonal pattern. Sales typically peak in the late spring (before vacation trips) and, partly because of fleet purchases by businesses and lessors early in the model year, again in October and November. Sales are usually depressed in January and February, because of adverse weather, and in August and September, as inventories of "old" models are liquidated.

Although the broad seasonal swings are clear, the proportions of annual sales and output in particular months and quarters vary substantially year to year. For that reason, sales trends early in the year are not always a good indicator of sales in succeeding months. This happened in 1966, when first-quarter sales were very large, and in early 1968, when sales, although inflated by the poststrike catchup were less than expected.

Auto producers have reaffirmed confidence in forecasts announced late last year. These ranged from 9.2 to 9.6 million cars, including at least 900,000 imported cars. The top end

---

**BUSINESS CONDITIONS** is published monthly by the Federal Reserve Bank of Chicago. George W. Cloos was primarily responsible for the article "Autos and trucks—output, sales, and credit" and Karl A. Scheld for "Ownership of demand deposits at large Chicago banks."

Subscriptions to **Business Conditions** are available to the public without charge. For information concerning bulk mailings, address inquiries to the Federal Reserve Bank of Chicago, Box 834, Chicago, Illinois 60690.

2 Articles may be reprinted provided source is credited.

of that range equals the record number sold in 1968. Truck sales are expected to approximate last year's 1.8 million, also a record. And, unlike auto sales, there has been no recent slowing in truck sales. Industry forecasts, of course, often serve more as sales goals than specific predictions.

### **One-hundred million vehicles**

The number of cars and trucks in the United States has increased a third since 1960, while the population has increased a tenth. The result is more than 100 million vehicles in operation—one for every two people. About 83 percent of these are passenger cars, a proportion that has been stable for years. The faster increase in vehicles than people can be attributed to several factors but mainly to growing affluence and rising standards of living.

Every year, cars and trucks carry larger proportions of the nation's passengers and freight. The average vehicle travels about 10,000 miles a year, a remarkably constant figure. Thus, the increased use of cars and trucks reflects more vehicles on the road, a trend that has continued uninterrupted since World War II.

The average life of motor vehicles is about ten years. With an increasing number of vehicles, the number scrapped increases nearly every year, adding in turn to the number of new vehicles required to keep the stock growing. Scrappage now eliminates almost 7 million cars a year and 1 million trucks and probably exceeds sales of vehicles for any year before 1962, except for 1955.

### **Size of the industry**

Employment in plants producing motor vehicles and parts averaged 870,000 last year—4.4 percent of all manufacturing employment. About 43 percent of these workers

were employed in Michigan, compared with 12 percent in Ohio, the second ranking state. They worked an average of 43 hours a week, compared with 40.7 hours for all manufacturing workers, and earned an average \$165 a week—30 percent more than the average for all manufacturing workers. Largely because of the industry's extensive mechanization, the value added per worker in the auto industry is almost 70 percent more than the average for all manufacturing.

In addition to workers employed directly in the production of motor vehicles and parts, many more contributed to auto production. The industry used more than a fifth of the nation's consumption of steel, half its rubber and lead, a third or more of its zinc and flat glass, and large proportions of the aluminum, nickel, and copper. The output of many plants fabricating metals, textiles, and plastics also goes largely to the auto industry. Altogether, the production of motor vehicles accounts for about 10 percent of all manufacturing activity.

### **Foreign output rises**

Until the 1960s, the United States, with less than 7 percent of the world's population, produced and used more than half the world's motor vehicles. Use of cars and trucks is still higher here than in any other country, especially relative to population. But the margin of difference has dropped substantially.

In 1963, about 52 percent of the world's cars and 62 percent of the trucks were produced outside the United States. By 1966, these proportions had reached 58 percent and 70 percent. In terms of value, however, these proportions were lower, because cars and trucks produced in Europe and Japan are usually much smaller than here.

After the United States, West Germany is by far the largest producer of passenger cars,

followed by France, Britain, Italy, Japan, and Canada, all of which produced 900,000 or more last year. The entire output of the USSR and its satellites was only about 500,000 cars. Private operation of passenger cars is still uncommon in Iron Curtain countries. As in almost all countries, however, truck transport is growing rapidly.

### The 1968 record for cars

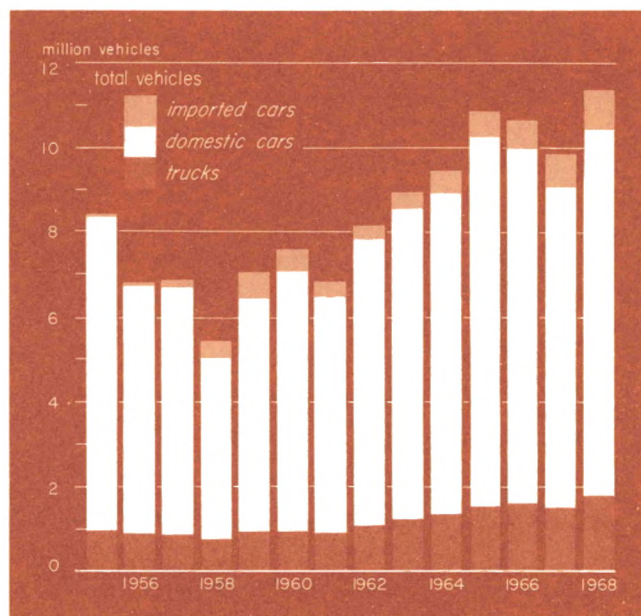
At the start of 1968, most projections of auto sales did not much exceed 9 million units. And relatively poor sales in the early months of the year caused some projections to be lowered. But in May, June, and July, sales of both U. S. and imported cars surged to record highs.

The final tabulation was well above even the most optimistic forecasts at the beginning

of the year: 9.6 million cars—including 1 million imports—15 percent more than in 1967. Though a record year in total sales, at 8.6 million, sales of domestic cars were about 100,000 less than the previous high in 1965. Sales of imports had been less than 600,000 that year. In 1968, as in 1965, production and sales were boosted about 300,000 units because strikes had restricted output in the fourth quarter of the previous year.

Production of cars in the United States totaled 8.9 million in 1968, second only to the 9.3 million produced in 1965. The greater gap between production and sales can be traced to the rise in inventories, which was 100,000 less in 1968 than in 1965, and to net imports of “domestic makes” from Canadian subsidiaries of U. S. manufacturers, which were about 200,000 more.

### Sales of both cars and trucks reached new highs in 1968



### Behind consumer demand

Consumers buy about 85 percent of all passenger cars, most of the rest being bought by businesses. Governments buy about 200,000. Consumer outlays on new cars and parts and dealers' gross margins on used cars totaled \$36.5 billion last year—far more than ever before. These outlays were 6.2 percent of disposable personal income—a substantially higher proportion than the 5.6 percent in 1967, which was near the average for the last decade. Since World War II, the 1968 proportion of income spent on cars has been equaled or exceeded only three times—in 1950, 1955, and 1965. It appears unlikely, therefore, that the high level of car sales last year will be exceeded in 1969, or even equaled.

The proportion of disposable income spent on cars and parts changes year to year, often by half a percentage point and sometimes by more than a full point—fluctuations that can be associated with changes in sales of as many as 1 million cars. The proportion of income spent on cars usually varies inversely with the proportion of income saved. When auto sales strengthen substantially, the rate of savings usually declines, and vice versa.

Auto sales are also influenced by such factors as the stock of cars, their average age, increases in the number of families, the number of people of driving age, and the need or desire for personal transportation. According to the University of Michigan Survey Research Center, about three-fourths of all spending units (families or people living independently) own cars. Although this proportion has been stable for several years, there has been a steady rise in the proportion of spending units owning two or more cars. These units now make up more than 32 percent of the units owning cars.

Demand for cars is being stimulated currently by the rising number of people of driving age—an increase stemming from the high birth rates after World War II. The ability of these people to buy cars is enhanced by the rapid rise in wages and salaries earned by new workers. While most new owners buy used cars, this demand supports the market for new cars by boosting used-car prices and improving trade-in values.

#### Business investment in vehicles

Businesses spent almost \$61 billion on producers' durable goods last year. Of that, almost 22 percent—or \$13 billion—was for new cars and trucks. In addition to buying most of the trucks—almost \$8 billion worth—businesses bought about 15 percent of the passenger cars—more than \$5 billion worth.

### Consumer savings usually move inversely with car purchases



Both totals were record highs by substantial margins.

Total sales of trucks—almost 1.8 million—were 15 percent higher than in 1967 and twice the number for 1960. About 200,000 trucks went to consumers for personal use, primarily recreation. In contrast with the situation for passenger cars, imports of trucks, other than those from Canadian subsidiaries of U. S. companies, are negligible.

The rise in truck sales last year was accompanied by an 18-percent increase in sales of trailers. Trucks account for about a fourth of all intercity freight ton-miles—land, air, pipeline, and water—and the proportion has been rising, mainly at the expense of railroads. Further development of the interstate highway system, slowed for the past year by economy programs, will help further the trend toward more truck traffic.

### Prices and values

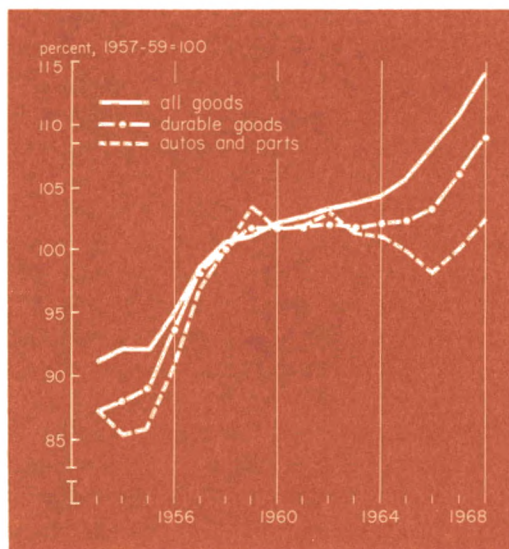
Changes in size, equipment, horsepower, and quality make it hard to compare vehicle prices over a period of years. For example, 89 percent of the 1968-model cars were equipped with automatic transmissions, compared with 72 percent in 1960. During those years, the proportion with eight-cylinder engines increased from 57 percent to 86 percent, power steering from 39 to 77 percent, power brakes from 32 to 45 percent, and air conditioning from 7 to 43 percent. Other features that had been optional in 1960, such as seat belts, backup lights, and window washers, became standard equipment.

In estimating changes in prices of cars and trucks, the Bureau of Labor Statistics, which is responsible for both wholesale and consumer price indexes, tries to allow for changes in quality, size, and equipment. After making its adjustments, the bureau shows that the price index for passenger cars reached a peak in 1959 and then began an irregular decline, reaching a low in 1966. Car prices that year averaged 3 percent lower than in 1959, while prices of all goods averaged almost 7 percent higher. The decline in car prices was reversed after 1966; prices rose 2 percent in 1967 and 2.5 percent in 1968. Even so, the increase was less than the rise for all goods.

The price index for trucks has moved fairly closely with the index for cars. Average prices actually paid for both cars and trucks have increased more than the price indexes since 1966 because of the trend toward larger, more expensive vehicles.

The renewed uptrend in auto and truck prices is not likely to halt in 1969. Compensation of industry employees is rising about in line with compensation of other workers. Prices of most of the materials used by manufacturers have risen in recent months. While the industry has often led other industries in

### Auto prices have risen since 1966 after decline from 1959 peak



incorporating labor-saving and cost-reducing innovations, stabilization of motor vehicle prices probably awaits a general abatement of inflationary pressures.

### Credit use increases

About two-thirds of all new car purchases involve the use of instalment credit, with the car serving as specific collateral for the loan. Purchases of many other cars, by consumers and businesses, are doubtlessly also financed with credit but through business channels or in ways not allocated to consumer credit.

A third of the instalment credit extended in 1968—more than \$31 billion—was on auto paper. And there was \$34 billion in auto credit outstanding at year-end—38 percent of all instalment credit outstanding. Auto instalment credit accounted for a larger proportion of outstandings than extensions be-

cause the average maturity of auto loans was longer than most other consumer loans.

For several years, the typical new-car loan has been for three years, with the maximum amount of the loan about equal to the wholesale price of the car. Loans on used cars are usually for two years or less. Many car loans are paid before maturity, often with proceeds from new loans.

Competition for auto loans obviously helps promote sales of cars, new and used. Banks have been the most important suppliers of auto instalment credit since 1959, when their share of outstandings passed the share of sales finance companies. At the end of 1968, banks held almost 57 percent of the auto credit outstanding, compared with 29 percent for sales finance companies. Consumer finance companies and credit unions have also raised

their share of auto loans in recent years.

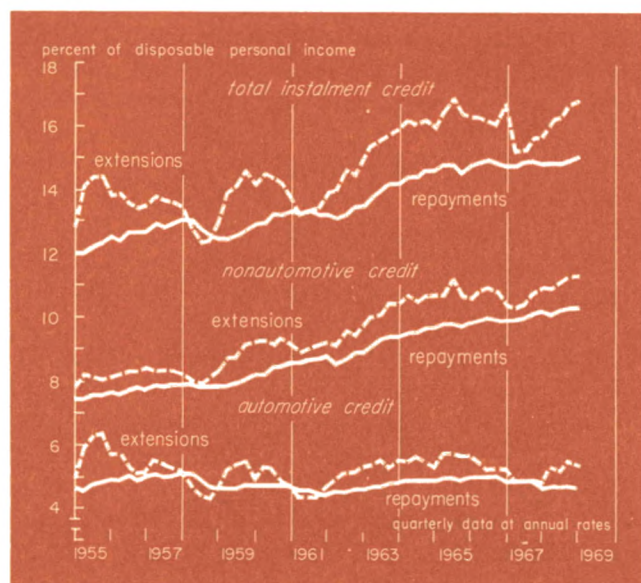
Although auto credit extensions and repayments were at new highs in dollar value, they were not at new highs as proportions of disposable income. Extensions amounted to 5.4 percent of disposable income, while repayments amounted to 4.8 percent. As proportions of income, extensions were higher in 1965 and at a record high in 1955. Repayments were 5 percent or more of disposable income in 1957, 1965, and 1966.

The ability of consumers to incur and service auto loans is related to their use of other types of instalment debt—use that has tended to rise faster than auto credit for the past decade. In the second half of 1968, total instalment-credit extensions were 16.8 percent of disposable income and total repayments were more than 15 percent. Both were record levels.

The years since World War II have seen continuing increase in the use of instalment credit relative to income, though not at a steady pace. Use of credit has been stimulated by rising confidence in the maintenance and growth of income, the erosion of strictures against debt, income-tax deduction of debt service charges, and by competition among lenders.

Auto instalment credit outstanding will probably rise again this year, unless there is an unexpected sharp decline in auto sales or the availability of credit becomes a limiting factor. Outstandings will probably not rise as much, however, as the 11 percent last year. Credit availability has been a factor in auto sales some years, when banks were forced to

### Instalment credit growth accelerated with record car sales



ration loanable funds among competing uses. Banks are important in consumer credit not only because of credits held directly but also because of loans to other financial institutions extending credit to consumers.

### **Imports, from Canada and elsewhere**

Imports of passenger cars from Western Europe and Japan increased more than a fourth last year, reaching a record of about 1 million. Most of these were small cars of a type not made in the United States, though some are made by European subsidiaries of U. S. companies. These imports were more than 10 percent of total deliveries to U. S. customers—a proportion equal to the peak reached in 1959.

With the introduction of new smaller American models that year, imports began to decline as a proportion of total deliveries, falling to less than 5 percent in 1962. But since then, the proportion has risen steadily. Most years, West Germany has supplied almost two-thirds of the imports. Japanese producers have made rapid increases in their sales here in the last two years, especially on the West Coast.

American producers are now readying new small cars to compete with imports—one of them expected to be introduced in April. Producers in this country have contended that high wages prevent them from competing profitably in the small-car market because the proportion of labor costs is higher for small cars. Several factors have caused them to reconsider their decision not to build small cars. One factor has been an appeal by Treasury officials, who said U. S. production of small cars would help the country's balance-of-payments position.

Although, since 1956, the number of imported cars has been far more than the number exported, until last year the dollar

value of exports (including parts) continued to exceed the value of imports. And for several reasons: the higher average value of U. S. cars, the stronger international market for U. S. trucks, and most important, the continued large shipments of parts mainly for use in cars and trucks assembled in other countries by subsidiaries of U. S. companies. Figures on the dollar value of imports and exports include trade with Canada, even though Canadian-built cars are considered "domestic" in dealers' reports of sales.

The value of automotive exports exceeded imports by two to one until 1966—the excess of exports in 1965 having been \$1.2 billion. The dollar value of both exports and imports have risen since then, but imports have risen faster—partly because of the larger inflow of cars from Europe and Japan and partly because of the 1965 automobile trade agreement with Canada. Imports last year, at \$4.4 billion, exceeded exports by \$400 million.

Shipments of cars and trucks between the United States and Canada were negligible until 1965, but shipments of parts were substantial, especially from the United States. With the agreement to waive tariffs and increase the share of output in Canadian plants (many of them in Windsor, across from Detroit), the picture changed significantly. Last year, 340,000 cars and trucks built in the United States were exported to Canada, while 660,000 were imported from Canada. Imports of Canadian-made parts also increased sharply.

Even before the agreement, output of motor vehicles was increasing faster in Canada than in the United States. In 1960, Canada produced less than 5 percent of the vehicles produced in the two countries. This proportion has increased every year, reaching almost 10 percent by 1968. And because U. S. companies are increasing their invest-



ments in facilities in Canada, the trend is likely to continue.

### **The sales challenge of 1969**

Dealer inventories of U. S.-built passenger cars, including those in transit, totaled almost 1.7 million on February 1. Only once before, in June 1966, was the inventory larger. On the basis of January sales, dealers had a 67-day supply, which in recent years was exceeded only in early 1967. Prospects for production and sales in February suggested a further rise in the "days' sales" on hand. Although truck inventories were smaller in comparison with recent experience, they too were at high levels.

Inventories may not be out of line with the intentions of industry executives. Had it not been for strikes in late 1967, auto inventories early in 1968 might have been near the current level. The proliferation of models and variations in installed optional equipment requires that dealers stock broader selections than in the past, although this need is moderated some by dealer arrangements to swap cars in inventory. And although the dates and strength of the spring surge in sales varies some year to year, dealers need to have adequate inventories this time of year to meet

the expected rise in demand. The possibility of an unforeseen work stoppage or other impediments to deliveries also encourages dealers to carry larger stocks.

Nevertheless, with inventories at such high levels, manufacturers have taken steps to slow production. This has been done mostly by reducing overtime. Last fall, workers in auto plants averaged 46 hours a week and six-day weeks were unusually common. Now five days are the rule, and some plants are on shorter schedules.

With this much merchandise on hand, the spotlight is on sales. Incentive plans that include sales contests and bonuses for salesmen are encouraged by manufacturers' rebates to dealers selling more than prescribed quotas. Buyers can be offered special discounts on optional equipment with large gross profit margins. Such plans are often used, but they were used earlier this year than most.

Meanwhile, motor vehicle producers are looking ahead to still larger volumes in the future, expecting demand for cars and trucks to continue rising with population and income. A preliminary report indicates that, after a three-year decline, manufacturers will boost their spending on new plant and equipment about 10 percent this year.

# Ownership of demand deposits at large Chicago banks

**B**usinesses are by far the largest holders of demand deposits at the five largest Chicago banks. The daily average of demand deposits at these banks last fall was \$6.5 billion. Ownership of the deposits was divided approximately as follows:

- Businesses—more than \$4 billion, or 64 percent.
- Other commercial banks—\$1.2 billion, or 18 percent.
- Individuals—\$600 million, or 9 percent.
- Federal, state, and local governments—\$400 million, or 6 percent.
- Miscellaneous items, such as letters of credit and certified, officers, and travelers checks—\$200 million, or 3 percent.

Information on the ownership of demand deposits has been obtained in cooperation with the five banks—American National Bank and Trust Company, Continental Illinois National Bank and Trust Company, The First National Bank of Chicago, Harris Trust and Savings Bank, and The Northern Trust Company. Data on daily average balances and debits have been assembled monthly since the spring of 1966.

This collection of information was undertaken primarily to determine the feasibility of collecting and assembling deposit and debit information by ownership group from large banks and secondarily to provide some preliminary indications of the contribution that ownership data might make to better understanding of money use in the economy.

Although the information on deposit ownership is not complete in every respect and only five banks have participated in the study so far, the data provide a good representation of the patterns of ownership and use of demand deposits at these banks and probably a general indication of the experience at other large banks as well. These banks account for nearly 80 percent of the demand deposits of Chicago banks with \$100 million or more in deposits. The patterns of ownership and use can be defined more explicitly when data have been assembled for a long enough period to permit computation of reliable seasonal adjustments.

## **Patterns of average balances**

Between the fourth quarter of 1966 and the fourth quarter of 1968, average total demand deposits at these five banks increased about \$425 million, or 7 percent, with most of the increase in business and personal accounts. Businesses increased their holdings about \$360 million, while individuals increased theirs \$70 million. Total government deposits declined substantially and deposits of banks rose about \$40 million.

There were only small shifts in the relative amounts of deposits held by various types of businesses. Manufacturing firms, the largest business-depositor group, increased their deposits, but less than in proportion to the rise overall, with the result that their share of total deposits declined. By contrast, deposits of financial (excluding banks), real-estate,

and insurance businesses increased sharply, raising their proportions of the total.

Companies engaged in transportation, communications, and public utilities made up the only group showing no increase in deposits. Deposits of mining companies and service establishments increased slightly as proportions of the total, while deposits of retailers and wholesalers and construction contractors increased apace with the rise in total business deposits. Deposits of agricultural firms showed a sizable percent increase,

but because of their small totals, they gained little relative to total business deposits.

Deposits of *manufacturers* at the five banks averaged almost \$1.7 billion in the fourth quarter of 1968—slightly less than the average in the fourth quarter of 1967 and only about \$40 million more than the same period of 1966. Fluctuations within a year were nevertheless sizable. The seasonal increase from November to December averaged almost \$85 million, and the decline from December to the seasonal low in April averaged

### Why study deposit ownership?

Interest in deposit ownership stems largely from the view that the money stock and its behavior are important for understanding and predicting the role of monetary policy in stimulating and moderating total spending. With only the total money-stock figures available, studies of money use have been based on a composite pattern for all groups. Because the economic behavior of various groups differ, it is reasonable to expect that patterns of money use also differ from group to group. Consequently, more information on the way each major spending group manages its deposit balances may yield better knowledge of the effects on the economy of changes in total money balances.

Although not complete, the information being collected in Chicago has the potential of providing at least a general indication of money-use patterns and their stability over time. The need for disaggregated data on deposits and debits is more urgent the less stable the turnover of deposits for each spending group and the proportion of deposits held by each. If the turnover and propor-

tions were stable, disaggregated data would not be needed.

If the turnover, or velocity, of deposit accounts proved to be stable, changes in deposit behavior should be related to changes in average balances. But if the relative proportion of each spending group's deposits remained the same over time, a change in total money stock would mean a proportionate change in money balances for each group. Under these circumstances, there would be no reason for collecting ownership data, because changes in each group's balances would be determined from the total.

There is a further point: if the proportion of balances held by each spending group remained stable over time but rates of turnover varied, debits—rather than average balances—would be the more appropriate measure for analysis. The behavior of spending groups that is significant in understanding and predicting the impact of monetary policy action on spending in the economy may well be the pattern of their money use represented by debits, not by changes in average balances.

about \$147 million. The effect of tax payments was obvious in the April lows. The reduced level of deposits in August, however, apparently reflected lower levels of manufacturing activity arising in part from vacation schedules.

Manufacturing deposits were lower in the second half of 1968 than in the corresponding period a year before, largely because deposits of manufacturers of durables were down. About 53 percent of all balances of manufacturers were held by these firms. Two of the largest manufacturing groups—non-

electrical machinery and electrical equipment and supply producers—had balances below those of 1967.

During most of 1968, balances of non-durable-goods producers were about the same as in 1967, but there was a sharp increase in November and December, mainly from producers of foods, chemicals, and paper.

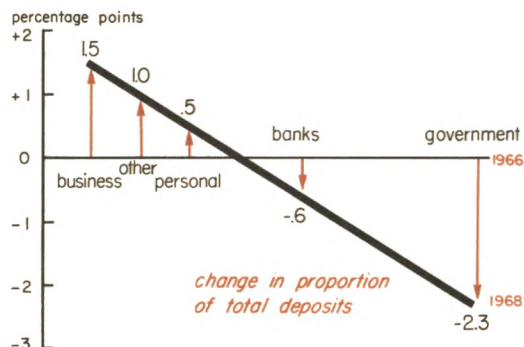
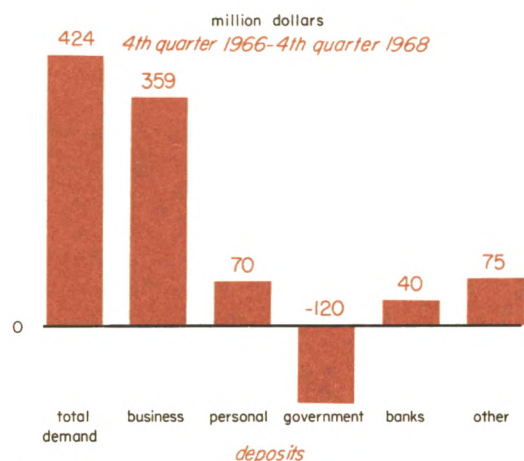
Comparison of deposits of manufacturing companies with the information that is readily available on national and regional activity does not indicate a close association other than that already noted between deposits and total manufacturing production. There also appears to have been no close association between changes in interest rates and changes in demand deposits of manufacturing establishments in 1966-68.

Increased activity in the securities and investment markets resulted in significant additions to balances of *finance, insurance, and real-estate* firms. This sector has shown the largest deposit growth of any business group—its average demand deposits increasing more than \$130 million, or 17 percent, between 1966 and 1968. Security and commodity brokers and dealers, insurance carriers, and real-estate and other investment companies, all made sizable contributions to the increase.

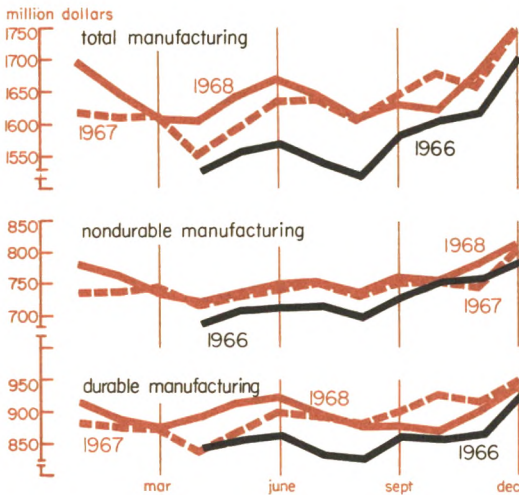
Security and commodity brokers accounted for the largest increase—20 percent of the total in this category. Their fourth-quarter 1968 deposits exceeded 1967 levels by 21 percent. Insurance companies, which account for more than 28 percent of the deposits in this group, added about 7 percent to their deposits. Holding and investment companies increased their deposits about 12 percent.

A variety of *service* establishments are depositors at these banks, including nonprofit membership institutions, companies supplying miscellaneous business services, educa-

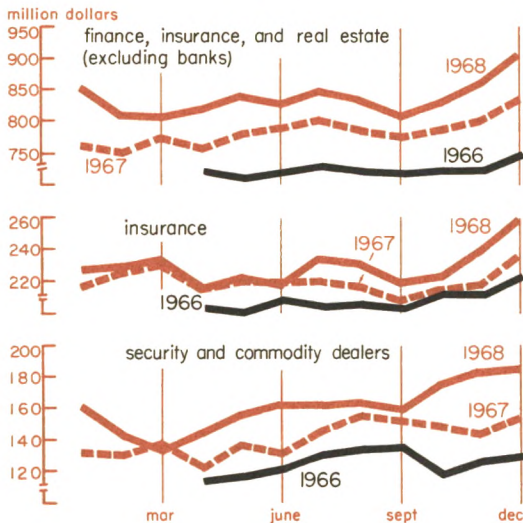
### Businesses led in deposit gains



**Manufacturing deposits grew slowly . . .**



**. . . while deposits of finance, insurance, and real-estate firms increased rapidly**



tional institutions, lawyers, theaters and other companies providing amusement and recreation, and medical and other health-service groups. Average balances of these establishments increased about 12 percent between the fourth quarters of 1966 and 1968. Much of the increase appears to have been associated with growth in services to individuals. As incomes have risen, larger shares of personal budgets have been spent on recreation, education, and other personal services. But much of the increase has also been associated with the growth in such business services as accounting, consulting, data processing, and employment agencies.

As activity increased, the number of service establishments with accounts at these banks also increased. About 1,000 such accounts were added, while the average account increased from \$24,000 to \$26,000. Because firms supplying services are typically smaller than other businesses, their demand-deposit balances also tend to be less. The average account for service depositors was only about a third the average size for all business accounts and only about a sixth the size of accounts held by transportation, insurance, and real-estate companies, the business group with the largest average account size.

Companies engaged in *transportation, communications, and public utilities* were the only group to have a decline in deposits. Deposits of airlines increased sharply—between 10 and 15 percent a year—and railroads and trucking and warehouse companies continued to add to their balances, though at a slower rate. But these gains were more than offset by declines in deposits of companies engaged in local and interurban passenger service, water transport, communications, and electrical, gas, and sanitary services. The latter group of companies accounted for al-

most a third of the demand deposits in this group. During most of 1968, their deposits were below those for 1967, and in December they even slipped below the level for 1966.

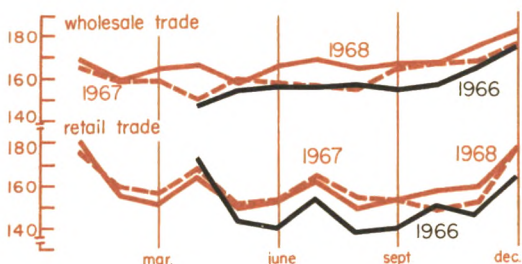
*Wholesale and retail trade* accounted for about 9 percent of business deposits—virtually the same proportion as in 1966. Wholesalers increased their deposits faster than retailers, gaining almost 5 percent over the period. The increase represented slight gains both in the number of accounts and the average size of accounts, which rose from \$54,000 to \$56,000.

Deposits of highly seasonal retail trade on the other hand, have grown little, almost all the gains being made between the fourth quarters of 1966 and 1967. Except for January and September, deposits in 1968 were less than in 1967. The moderate increase was accompanied by a fairly rapid increase in the number of retail accounts, with the result that

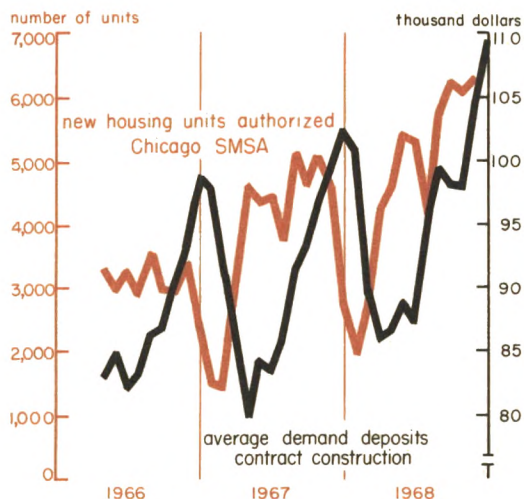
### Deposits of transportation, communication, and public utility firms fell below 1966 levels . . .



### . . . while trade deposits rose slightly



### Increases in contractors' deposits lagged behind rise in housing authorizations



the average size of account declined from \$58,000 to \$56,000.

Although pronounced seasonal swings in retail-trade deposits coincided to an extent with the usual pattern of retail sales, there was also an association between retail sales and debits to retail accounts. Debits fluctuated more than retail sales, but tended to move in the same direction.

Companies engaged in *contract construction* had about \$104 million in deposits in the fall of 1968—about 2.8 percent of all business balances. This represented a gain of some \$10 million, or 11 percent, since the same period in 1966 and a slight increase in the proportion of total business deposits held by construction companies.

Average balances for these companies showed a marked seasonal pattern, related to

a lag in seasonal swings in construction activity. For example, changes in balances tended to follow changes in authorizations for new housing units in the Chicago area by about two months—probably close to the usual lag between permit issuance and first payments to contractors. The seasonal decline in authorizations from November to January or February was not reflected in balances—at least in any magnitude—until January. And deposits continued to fall until March or April, two months after building authorizations had started to increase again.

The two smallest depositor groups were *agriculture and mining*. In both cases, relatively few customers accounted for these balances.

### Turnover of deposits

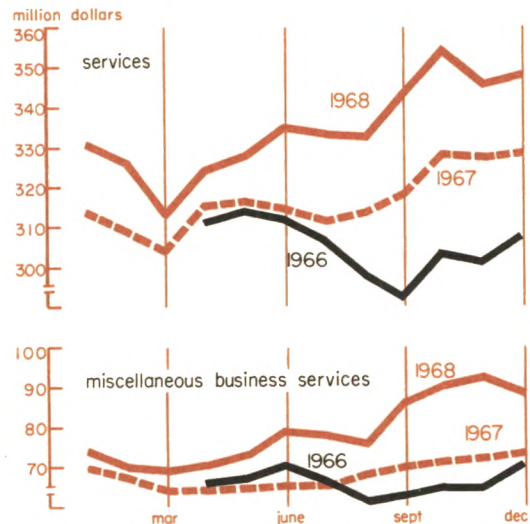
To examine the intensity of money use by industry, deposits were related to disbursements (debits). Deposit turnover—a measure of money use—was computed by dividing monthly debits by average monthly balances.

Demand deposits of all businesses turned over about 9.7 times a month in the fourth quarter of 1968. But the turnover varied widely among types of businesses, ranging from about three times a month for mining companies to more than 18 times a month for retail stores.

For the year as a whole, businesses tended to fall into three turnover groups: those with high turnovers of 18 to 20 times a month, which included retail trade and finance, insurance, and real estate; those with moderate turnovers of six to seven times a month, such as manufacturing, wholesale trade, and transportation, communications, and public utilities; and those with turnovers of three to four times a month, which included agriculture, mining, construction, and services.

For most businesses, there were moderate

### Deposits of service firms increased substantially



increases in turnover between the fourth quarters of 1966 and 1968. The exceptions were mining and agriculture, the two smallest depositor groups. The increases in turnover suggest that firms have been able to meet their money needs by making more intensive use of their deposit balances.

The intensity of deposit use tended to rise with increases in activity in certain kinds of business, for example, in finance, insurance, and real estate. With the increase in activity in financial markets, turnover rose to an average of more than 18 times a month in the fourth quarter of 1968. Security and commodity dealers posted not only the highest turnover but the biggest increase in turnover, with the monthly rate moving up sharply from between 25 and 28 times a month in the fourth quarter of 1966 to between 34 and 37 times in late 1968.

### The overview

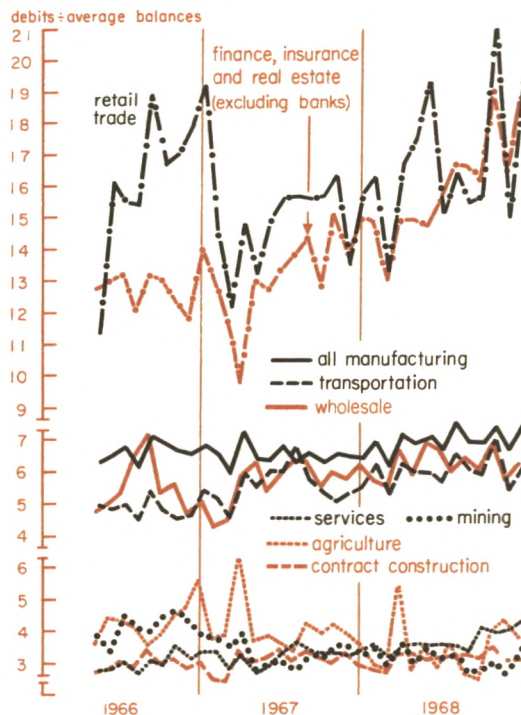
Although sizable changes have been made in business deposits since the spring of 1966, the largest appear to have been in the deposits of financial, insurance, and real-estate firms. When deposits of these firms are excluded from the business category, changes in the proportion of total deposits accounted for by each type of nonfinancial firm show little month-to-month change. Because the deposit growth of financial firms has been fairly steady over this period, adjustment could be made for the trend.

Information for a longer period is needed to confirm the apparent stability in the proportions accounted for by nonfinancial firms and the trend of financial-firm deposits. But the implication so far is that frequent information on average balances of various groups of business deposit holders may yield little additional insight into money use.

On the other hand, partial information suggests less stability in the proportion of deposits held by the broader ownership categories of individuals, businesses, governments, and banks. If these proportions are found not stable, fairly frequent information on these groupings might be needed to determine any pertinent relationships between average demand-deposit balances and levels of economic activity and interest rates.

The information now available suggests substantial month-to-month variation in the turnover for some types of business firms. But if there is a regular pattern to these changes, suitable adjustments can be made,

### Businesses with largest turnovers showed largest increases in turnover



making frequent information on debits ownership unnecessary. On the other hand, if changes reflect short-term behavioral shifts, frequent data on debits ownership would be useful. This could mean that for adequate interpretation of changes in money use, more detailed information by business type would be needed for debits than for average balances.