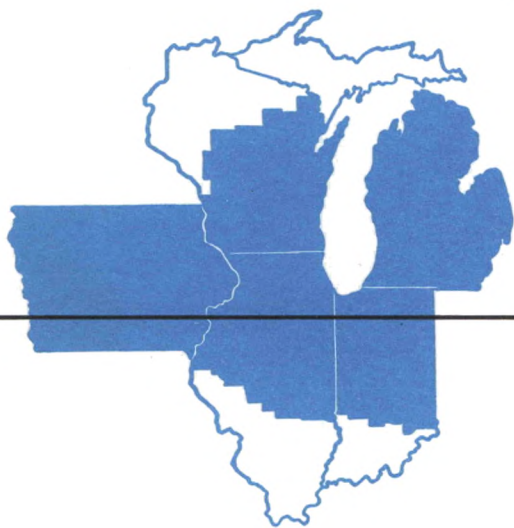


A review by the **Federal Reserve Bank of Chicago**

Business Conditions

1955 February



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THE Trend OF BUSINESS

The business recovery which began early last fall has picked up considerable strength in recent months. Industrial production rose slightly in September and October, but the first substantial gains occurred in November and December when a 3 per cent boost was chalked up. Manufacturers' new orders increased sharply in November, and order backlogs in most lines have been improving for several months. Business firms continued to reduce inventories through most of the fall, allowing for seasonal adjustment, but in November stocks increased slightly for the first time in more than a year. Finally, retail sales spurred sharply upward in December as new model cars moved in large volume and merchants generally enjoyed an excellent Christmas season.

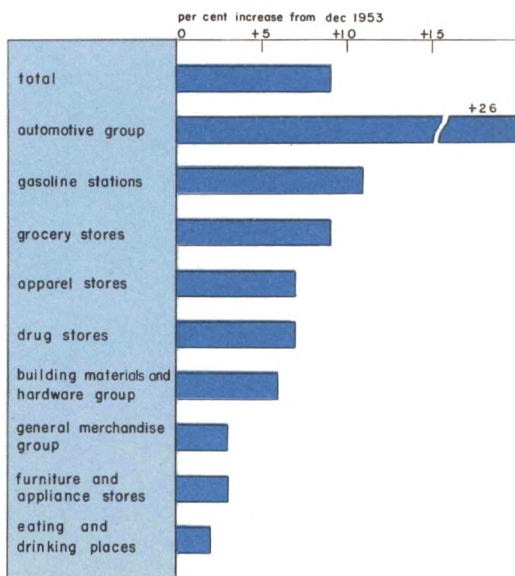
Industrial activity has scored a sharper advance in the Midwest than in the nation so far, largely due to the spectacular upsurge in new car production. This development has affected not only Michigan centers, but also many other District cities where important parts plants and materials suppliers are located. Output of television sets, appliances and electrical machinery and equipment generally has also advanced in recent months, and farm machinery firms are rehiring in anticipation of a seasonal pickup in sales. As a result, the general business tone has improved considerably in most centers as compared with last summer.

The higher rate of automobile production and related activity apparently will continue at least through March. Firms have tentatively scheduled assembly of nearly two million units for the first quarter—40 per cent more than in the same months last year. Record

dealer sales will be required if this schedule is met and inventories are to be kept within reasonable bounds. Even if first-quarter retail deliveries are 35 per cent higher than last year and 10 per cent above the previous all-time peak in early 1951, inventories would rise from about 360,000 cars at year-end to over 600,000 units at the end of March. Consumer acceptance of the new models, however, has been very good if judged by November and December sales.

Employment has not fully reflected the business improvement as yet, although the average manufacturing work week has advanced in recent months. Wage and salary employment,

Retail trade in December scores large gains over 1953



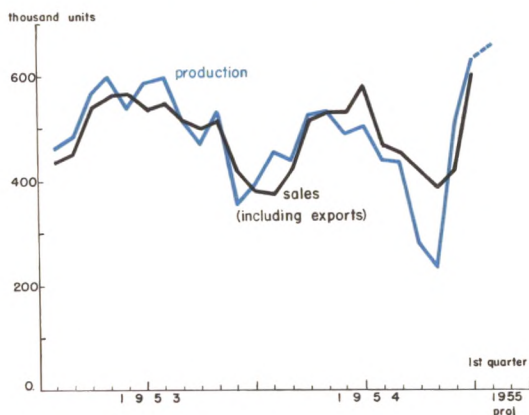
seasonally adjusted, increased only 400,000 from August to December, as compared with a decline of 2 million in the preceding year. Nationally, unemployment amounted to 2.8 million in December—one million more than a year earlier—and the total is likely to increase substantially for seasonal reasons in the early months of this year.

As of mid-November, most major District centers still reported unemployment exceeding 5 per cent of the local labor force. State Employment Security offices noted few shortages of applicants for particular job categories, and most reported appreciable surpluses of both unskilled and semiskilled workers. Thus, labor supply is likely to continue more than ample in most industrial areas for the immediate future.

Retail sales easily reached a new record volume for December, according to preliminary Census reports. Total volume exceeded 1953 by 9 per cent and advanced 6 per cent from November on a seasonally adjusted basis. Aided by earlier introduction of new models, automobile dealers scored the sharpest year-to-year gain in sales. Strength was by no means confined to this group, however. Retail sales other than automotive increased 7 per cent from the December 1953 volume, as all major categories of stores reported gains. Whether or not the higher sales rate is maintained, consumers clearly have the financial capacity to spend more freely. Personal income after taxes has continued to edge upward throughout the past year, while retail trade has tended to lag since mid-1953.

Department stores in major District centers generally experienced a less favorable volume of Christmas business than in the nation generally. In the six weeks from Thanksgiving to year-end, big store sales nationally were 4 per cent higher than a year earlier. District department store sales, however, showed a gain of only 1 per cent, mostly due to a 4 per cent rise in Detroit. Chicago sales were unchanged from the previous year, Indianapolis volume was off 2 per cent, and Milwaukee sales were down 5 per cent. Despite substantial improve-

Production and sales of cars soar following introduction of new models



SOURCE: Ward's Automotive Reports and Automobile Manufacturers' Association

ment in recent months, most District centers had suffered sharper drops in employment and income from 1953 to 1954 than occurred in the country as a whole.

Price trends have been mixed in recent months, but there appears to be some tendency toward a firmer tone in many markets. A wide list of industrial raw materials are currently bringing higher quotations than a year ago. These include rubber, all nonferrous metals and steel scrap. Price increases have recently been announced for aluminum, auto tires, home heating oil and some building materials. On the other hand, many appliance and television producers posted small reductions in list prices for their 1955 lines, and the leading mail order houses have reported that prices in their spring catalogs average somewhat lower than a year ago.

Ample supplies of materials, labor and plant capacity combined with vigorous competition in most lines would seem to limit any appreciable price advance in the period ahead.

Construction expenditures increased further in December, after seasonal adjustment, as outlays for residential building reflected the large number of units started during the second half. Total expenditures were 10 per cent

above 1953, as compared with a gain for the year of only 5 per cent. New contract awards continued in very heavy volume through the year-end, both in the District areas and in the nation. Most of the year-to-year increase in recent months, however, has been accounted for by residential awards. The importance of liberalized VA and FHA loans in the current housing boom is indicated by the fact that such financing accounted for nearly three-fifths of the fourth-quarter starts as against two-fifths a year earlier.

Farm land values have increased in recent months following a downtrend of about two years' duration. A stabilizing of prices for agricultural commodities since midyear and the boosting of loan limits by some lenders appear to have been the major factors behind renewed buyer interest in farm land. Prices of farm products had declined persistently since early 1951, but now are generally expected to hold near current levels in the months ahead.

The new Budget

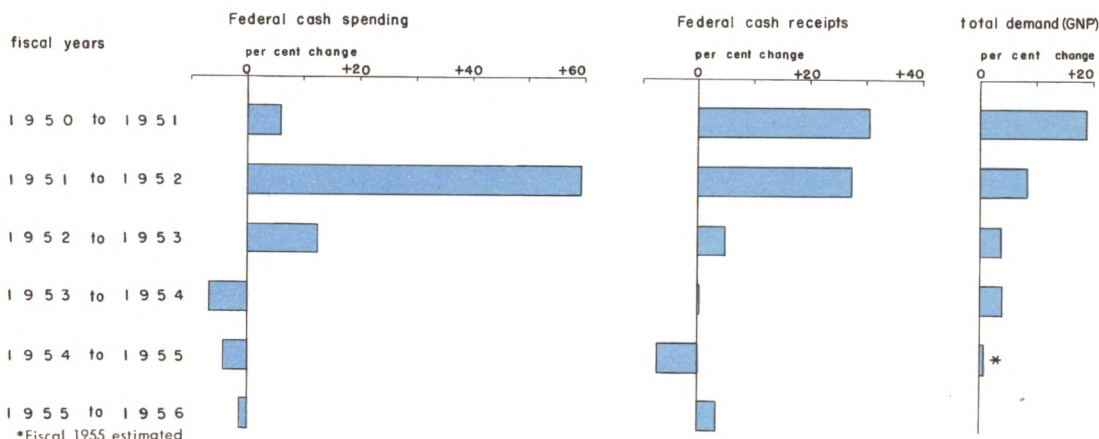
Little change in Treasury income or outgo is in store for the coming fiscal year, judging from the 1956 Budget estimates released January 17. Cash outlay will be down 1.1 per

cent and cash income up about 3 per cent, if projections are realized. Seldom in the recent past has there been so modest a year-to-year movement of Federal income and spending.

The 1956 Budget estimates look 18 months into the future, and their accuracy will hinge upon the willingness of Congress to accept the President's fiscal program essentially as it stands. This means no significant change in expenditure proposals or modification of the existing tax structure. The estimates also are contingent upon realization of the trend in business that the over-all plan assumes. Favorable economic conditions are anticipated, with personal income for calendar 1955 expected to total 298.5 billion dollars, 12 billion more than either last year or 1953.

Past experience indicates the sharp impact that variation in the tempo of economic activity has upon the course of Government receipts and spending. The recent recession spelled a shrinkage in tax yields and an expansion of outlays for public assistance and farm price supports. Higher levels of activity should reverse these trends. A modest 600 million cash surplus, foreseen for fiscal 1956, is the present measure of the outcome of current and prospective tendencies.

Year-to-year changes in Government spending since 1951 have been paralleled by changes in total demand for goods and services.



Checkbook spending—a yardstick for measuring area activity

Bank debits have usually been regarded as the best index of local business conditions. This title admittedly may have been held largely by default, since in many cases alternative indicators are sketchy, highly specialized or even totally lacking. For all their shortcomings, debits figures—the total dollar amounts of checks drawn against bank accounts—must obviously bear some relationship to over-all business activity. Moreover, debits statistics possess the qualities of prompt availability, continuity, relatively adequate comparability and broad and uniform coverage. These virtues have made the debits series quite appealing to observers hard-pressed for quantitative measures of the changing local scene.

Extensive revisions were made in the bank debits series during 1953. As a result, there is basis for greater confidence today that this series can be recommended as a local business indicator on the more positive grounds that it does in fact reflect local economic activity rather closely. The debits series as currently published comprises charges against demand accounts of individuals, partnerships, corporations, states and local units of government. It now excludes debits to U.S. Government accounts, which reflect principally shifts of Treasury deposits from the commercial banks to the Federal Reserve Banks and which, therefore, have little relation to local spending activities. In addition, the new series also excludes debits to time deposit accounts, for which the turnover is very low—about once every two years on the average. Recent revisions thus have been in the direction of increasing the comparability of the basic figures among areas, as well as enhancing the effectiveness of this index as a measure of local spending.

Even in its new form, the debits series can-

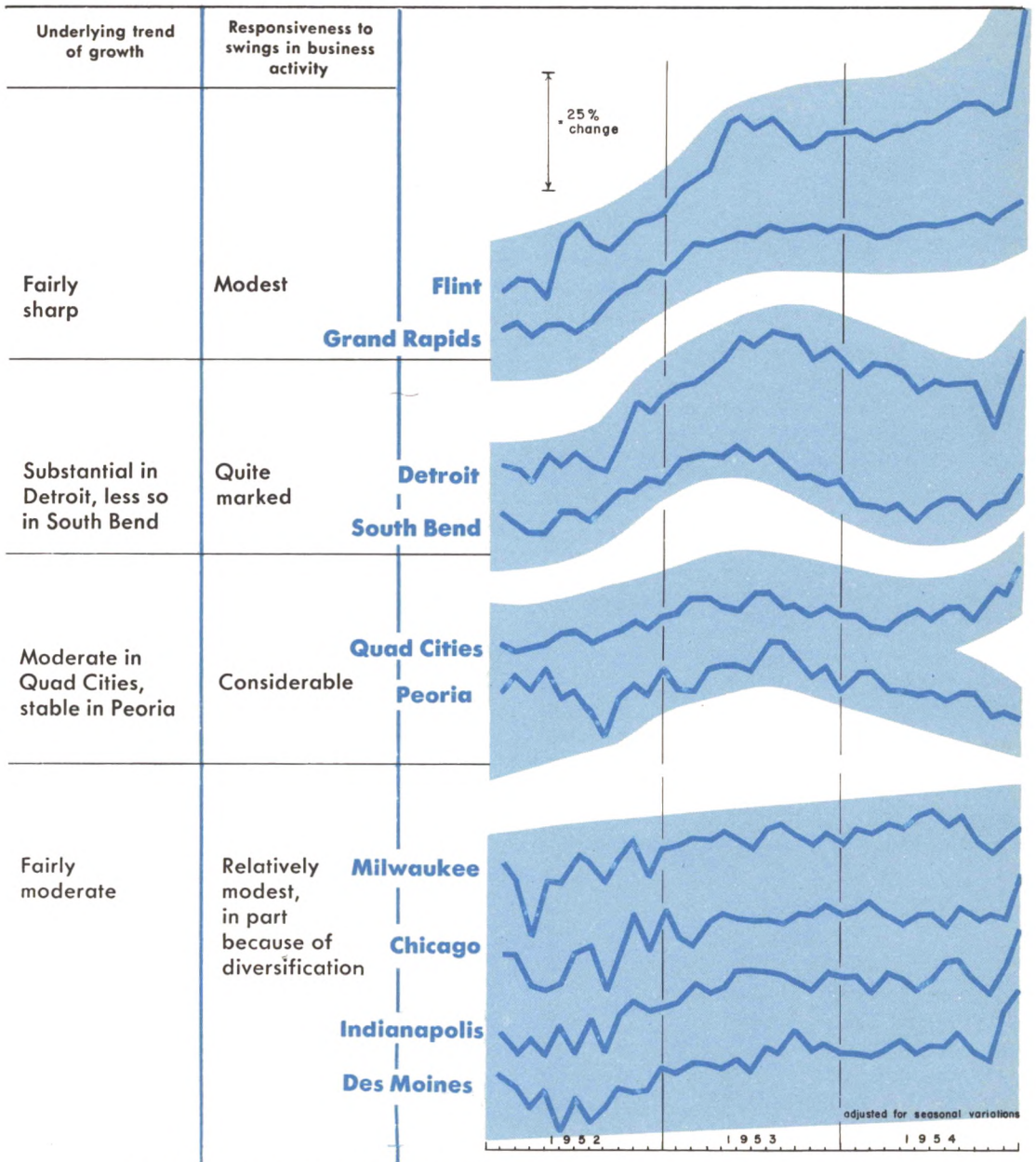
not be considered an infallible index of current business trends. While most checks are used to pay for goods and current services, an important proportion of the dollar volume of checks each year results from purely financial or capital transactions. Transfers of property and other assets are usually settled by check payments, adding to debits totals in the process. Securities transactions particularly generate a large volume of debits. Moreover, the size of these debits may undergo fluctuations different in degree and direction from those arising from productive and distributive activities. Another factor inflating debits totals is the considerable movement of corporate and other funds by nationwide organizations from one area to another. Financial transactions such as those listed above have their greatest effect upon the demand debits of commercial banks in the nation's largest centers. In other localities, their distorting effects are considerably less.

Range of debits in District areas

Among the Seventh District's 28 metropolitan areas, annual debit totals range from one-half billion dollars in Kenosha to 155 billion in the Chicago area. These variations are hardly surprising, in light of the wide differences among areas in their size and economic structure, but they do make intercity comparisons difficult.

One way of allowing for the unequal size of cities, of course, is to put debits on a per capita basis. Even with this adjustment, however, per capita debits for the year ended June 30, 1954, range from a high of nearly 27,000 dollars in the Chicago area to a low of 5,500 in the Flint area. The most common per capita debit total was between 8,000 and 10,000 dollars

Growth and stability in Midwest areas, 1952-54,
as measured by bank debits



Debits figures for these and 35 other District cities are available monthly upon request.

annually; more than a third of the District's metropolitan areas fall within this range.

There is some tendency for per capita debits to vary directly with the population size of the areas. But several exceptions to this general rule can be noted. For example, Flint, Michigan, one of the top 10 District areas in terms of population, generates a lower per capita debits volume than any of the other 27 Midwest metropolitan areas. Some of this disparity can be accounted for by the fact that large business accounts are sometimes concentrated in banks in major financial centers rather than in communities in which the main operations of the business occur.

Financial debits cloud the picture

Closely allied to size of population in explaining area differences in per capita demand debits is the proportion of financial debits to total. While the exact amount of such debits cannot be pinpointed for any particular community, financial debits are important percentage-wise in a number of the District's areas and account for a good deal of the size difference of per capita debits. This seems particularly true in the case of Chicago and Detroit and also in Des Moines where insurance company activity is heavy.

The influence of recent financial developments upon debits totals has been particularly evident over the past two years. In New York City, where financial debits are several times as large as debits arising from nonfinancial transactions, total demand debits have been rising almost continuously since the post-World War II reconversion period. In 1954, New York debits reached nearly 750 billion dollars, for an increase of one-sixth from 1953 levels. Outside New York City, last year's debits barely surpassed 1953 totals.

Even this minimal gain over 1953, however, placed the debits series (outside New York City) in sharp contrast to the downtrends exhibited by many other economic indicators after the middle of 1953. For one thing, consumer spending has been maintained at a relatively high level over the past two years, and

this stability weighed importantly in debits totals. In addition, the surge of financial transactions has produced in one way or another higher debits totals which have acted as a counterbalance to some decline in debits arising from other types of activity.

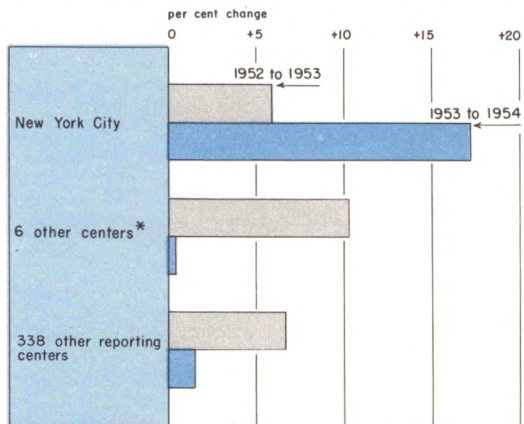
Finally, there is some reason to believe that the trend toward increased use of fund transfers via check buoys debits totals. As a result of all these influences, the recent business downturn was reflected in national debits figures by a slackened rate of growth rather than by any absolute decline.

Area reaction to the recession

While combined debits figures for the nation as a whole reflected recessionary tendencies by leveling, debits volume in many communities, particularly those outside the financial centers, exhibited various degrees of contraction for a span of time after mid-1953. These movements reflected the fact that recessionary pressures rested much more heavily on some communities than on others.

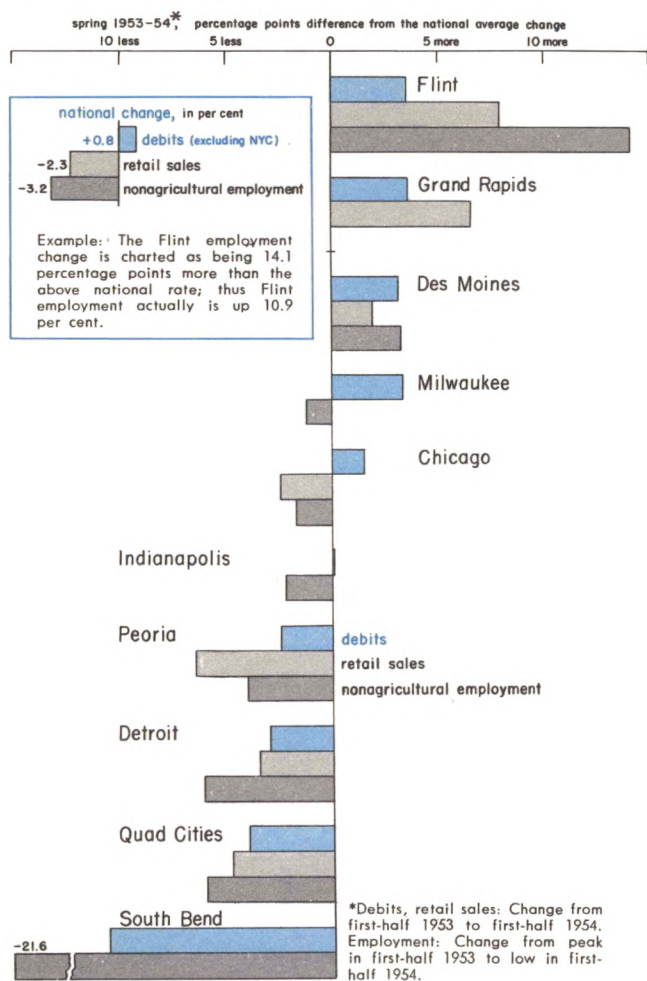
Some idea of the extent of the dip among the District's 10 largest metropolitan areas can be gleaned from a comparison of individual area debits. Daily average debits are shown in

Financial debits push New York totals in 1954 far above previous year



*Boston, Philadelphia, Chicago, Detroit, San Francisco and Los Angeles.

Debits, retail sales and employment compared as indicators of area trends



an accompanying chart. The data are plotted on a ratio scale so that a given percentage change is represented by the same vertical distance in any line. Moreover, in recognition of the sharp debits fluctuations around such times as Christmas, crop marketing seasons and tax payment dates, the data have been roughly adjusted to remove purely seasonal swings.

As the chart indicates, the various areas differed widely in the rate at which their volume of checks increased during late 1952 and

the first half of 1953, when production, sales, employment and most other indexes of business activity were rising. The greater-than-average debits rise in the three Michigan areas was particularly noteworthy and coincided with a general upsurge in durable goods production—mostly automobiles—in these areas. In contrast, smaller increases took place in the debits totals of more diversified areas such as Chicago, Indianapolis and Milwaukee.

After mid-1953, the dollar volume of checks drawn contracted in most of the areas shown but, again, in varying degree. Detroit debits, along with other indicators of business trends, dropped considerably more than the debits totals of areas like Des Moines. By the end of 1954, on the other hand, Detroit debits were rapidly regaining the ground lost earlier. A similar resurgence was appearing in the debits totals of most of the other centers as 1954 drew to a close. These recent debits uptrends, as sharp as any recorded in the last three years, are persuasive indication of the pace of the current business pickup.

Underlying all these short-run movements, meanwhile, were continuing trends of longer-run growth. Most obvious evidence of such persisting growth tendencies appeared

in the debits of Flint and Grand Rapids.

Economic measures compared

Some measure of how demand debits stack up as an economic indicator may be gained by comparing changes in debits with shifts in other economic indexes. Over the long run, it can be reported, total debits in a state's leading centers have shown a close correspondence with trends in aggregate income payments to individuals in that state.

For a sharper focus, comparisons can be confined to movements in selected Midwest areas during the 1953-54 recession. For most of the District's 10 largest centers, reasonably reliable estimates of retail sales and employment can be obtained. In an accompanying chart, area movements in these series and in debits are compared with each other and with the average national changes. In most of the areas, the change in debits trend from the first half of 1953 to the first half of 1954 moved closely with the change in retail sales (in the verbiage of statisticians, the two series possess a high positive coefficient of correlation). The debits trend did not match as well

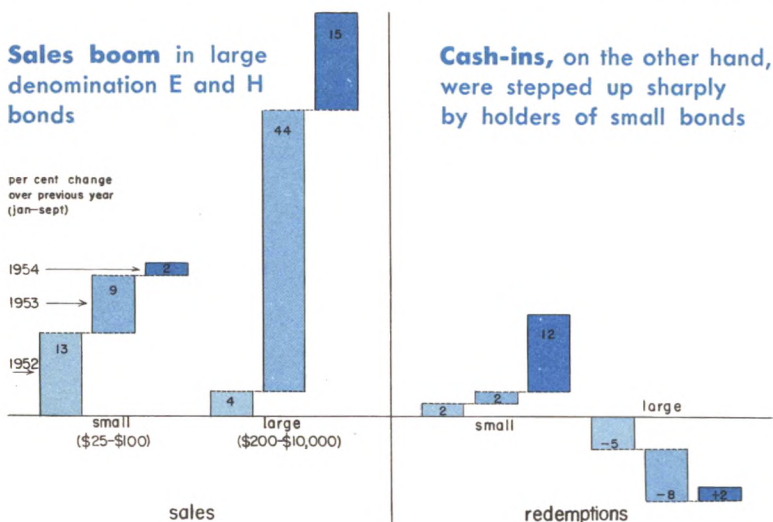
with employment shifts but neither, for that matter, did retail sales. Generally speaking, the correspondence was closest in smaller centers, where the disrupting influence of financial transactions is undoubtedly less.

No one of these series, of course, can be presumed to tell the whole story of a center's business trends. Each set of figures has its own peculiar attributes, an example of which is the underlying tendency for greater growth in debits than in either employment or retail sales. With allowance for such special characteristics of debits as have been outlined here, however, debits series can supply a usable portrayal of the changing tempo of local business activity.

Savings bonds and big savers

From mid-1953 to mid-1954 the economy moved through a period of mildly declining production, sporadic reductions in employment and income and general uncertainty as to the business outlook. Not until the closing months of 1954 did a resurgence of activity occur. In face

of these swings in general business, the Government's savings bond program firmly held its own. Even though 5½ billion dollars of bonds sold during wartime reached maturity last year, cash redemptions were largely matched by new sales, leaving the total volume of savings bonds



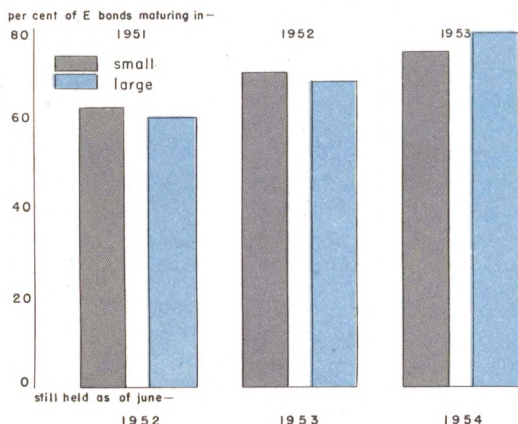
held by the public virtually unchanged. This achievement was principally a result of increasingly heavy sales of Series E and H bonds, totaling almost 4.9 billion dollars, and an improved rate of extension (under the automatic 10 year extension option) on bonds falling due during this period.

What accounts for this favorable behavior of savings bonds while economic activity was

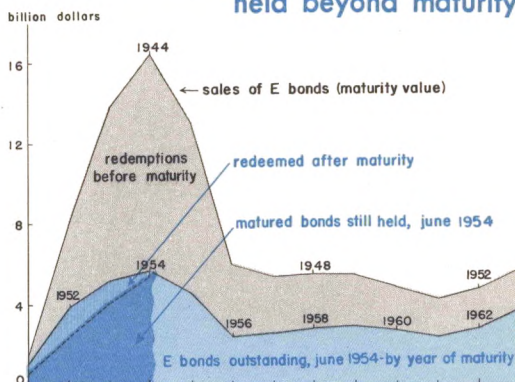
generally on the decline? The key to the explanation lies in the difference in patterns of purchases and redemptions between two distinct groups of buyers. These are, first, the small savers who participate in the program through payroll savings and the Bond-A-Month Plan as well as through direct purchase of bonds of the \$100 and smaller denominations and, second, the large investors who normally come into the market early in the year and buy larger denomination bonds up to the permissible maximum. Along with the latter group, of course, must be considered the institutional investors for whom the J and K bonds (formerly F's and G's) were chiefly designed.

In general, small savers continued to buy E and H bonds fairly steadily during 1954. Cash-ins in the small denomination category, on the other hand, rose sharply. Although small bond cash-ins have exceeded sales in each year since the War, this annual deficit was widened appreciably in 1954. The result was a relative shrinkage in the net share of small investors in the savings bond program. Such a development undoubtedly reflected the impact of reduced incomes in some segments of the economy accompanying the lower level of business activity and employment.

Bondholders have held increasing proportions of bonds beyond maturity, especially holders of large bonds



Record maturity of E bonds in 1954 . . . Treasury problem eased by step-up in sales and large volume of bonds held beyond maturity



At the same time, the percentage of maturing bonds retained by small holders under the extension option was well sustained. This stems from the fact that the owners who have already kept their bonds as long as 10 years represent the most stable segment of the small buyers. They are obviously under less pressure to obtain cash for other uses and perhaps more interested in capitalizing on the continuing 3 per cent return offered by the extension privilege.

Crucial role of the big investor

Although established primarily to be the "little" man's avenue for participation in Government financing, in the past two years the savings bond program has been increasingly dependent for its success on large investor interest in these nonmarketable securities. Almost all of the increase in sales of E and H bonds last year was in the large denominations. To some extent, additional sales have been stimulated by the higher maximum limit on the amount which any individual was permitted to purchase annually. An important stimulus which induced investors to take advantage of this opportunity, however, was the changing rate differential between marketable and nonmarketable debt instruments after mid-

1953. As interest yields on marketable securities dropped sharply and steadily in the "easy money" climate accompanying the business recession, the 3 per cent return on savings bonds became increasingly attractive to the rate-conscious big investor group.

Meanwhile the percentage of maturing bonds retained by investors rose even more for large savers than for small. Since the E bonds began maturing in May 1951, about three-fourths of the dollar volume of maturing bonds has been retained by all classes of owners.

The changing outlook

If the major force behind the success of the savings bond program in the past two years was large investor participation, what can be expected in the months to come? Since late 1954,

a reversal has taken place in the trend of business activity. Uncertainty has been replaced by confidence that business activity and employment will show continued strength. The rise in stock prices provides striking evidence of this confidence. The decrease in yields on open market securities has given way to a moderate increase.

If this upward trend continues, savings bonds are likely to lose some of their appeal to large investors, who may see fit to shift part of their funds into other more profitable outlets. Meanwhile the Treasury will be faced with another large volume of maturities this year. If a net cash drain of funds is to be prevented, therefore, increasing reliance may again have to be placed on small savers to provide the backbone of the savings bond program.

Getting to work—autos clog streets, rail volume slumps

In the past twenty-five or thirty years, we have devoted a remarkably large share of our capital resources to improving the means by which people who live in and around cities get to work. City and state governments have invested heavily in subways, bridges, tunnels and expressways. Transit companies have sunk millions into new and modern buses, and private citizens have bought billions of dollars worth of automobiles. And with what result? For most people, it takes as long to get downtown as it ever did, and for many it's as uncomfortable and frustrating as it ever was. This is despite the fact that the costs of commuting, whether paid through taxes, tolls or fares, have soared and the financial predicament of commuter railroads and transit companies has become grim.

What we have done is to enlarge the congested area. The speed of newer forms of transportation, compounded by the additional time people are willing to devote to commuting to and from work, has pushed out the boundaries of the metropolitan center farther and farther. Motor transport has contributed more than speed, however. Buses and automobiles are readily adaptable to new route patterns. This has changed the economic geography of our cities, by making it possible to relocate factories and shopping areas and, in fact, to build cities within cities throughout the larger metropolitan regions. Despite the decentralization, the effect seems to be more and more congestion on a grander and grander scale.

By definition, congestion means that more passengers and vehicles seek accommodation

than the existing transportation network can move. By definition, too, it can be cured by any combination of reduced traffic volumes or increased transportation capacity.

Reasons for congestion

Congestion is a physical problem, but its causes and cures are as much economic as the causes and cures of such physical problems as shortages and surpluses of commodities. One economic cause is the obsolescence of the cities' streets which, after all, are the principal facilities over which traffic flows. Existing street patterns and widths were devised years ago, not to speed vehicular traffic, but to provide access to as many stores and houses as possible. For years after the advent of the motor vehicle, highway funds were almost exclusively devoted to paving intercity and rural roads and very little money was spent on their in-city connections. It is only relatively recently that public agencies have begun aggressively to plan and build modern expressways capable of carrying a hundred thousand or more vehicles daily. The city highway plan has never really been altered or even appraised to suit modern needs.

Meanwhile, those needs have grown rapidly, first, as the ownership of motor vehicles has spread and, second, as the cities themselves have grown in population, volume of business and employment, thus generating more traffic. Then also there is more traffic simply because people live farther from the centers of cities. All this has taxed existing facilities severely and far outpaced plans for the future.

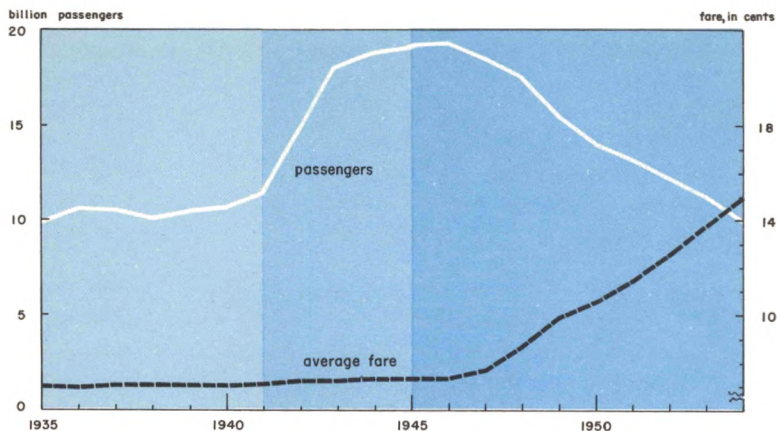
Decentralization in the larger metropolitan areas complicates things further. Years ago nearly everyone worked in or near the central business districts of large cities. Today, however, more and more employment and trade are located on the periphery of the big cities or in their suburbs. So the big cities need arteries between the principal residential areas and the principal outlying focal points of industry and trade as well as arteries radiating from their centers. Take Chicago, for example. Only about a fifth of the employees in the six-county

metropolitan area work downtown in the central business district. Most people work in outlying sections of the city itself, but a substantial segment works in the suburban area. In fact, more people are employed in the suburbs than in the Loop. Furthermore, the bulk of those who work downtown ride rapid transit lines and commuter railroads to and from work, neither of which use the streets, whereas only a relatively small portion of the people employed in outlying sections use off-street transportation facilities. Probably no more than 200,000 of the 2,000,000 or so who move to work via surface transportation—buses, streetcars, private automobiles and taxis—work downtown.

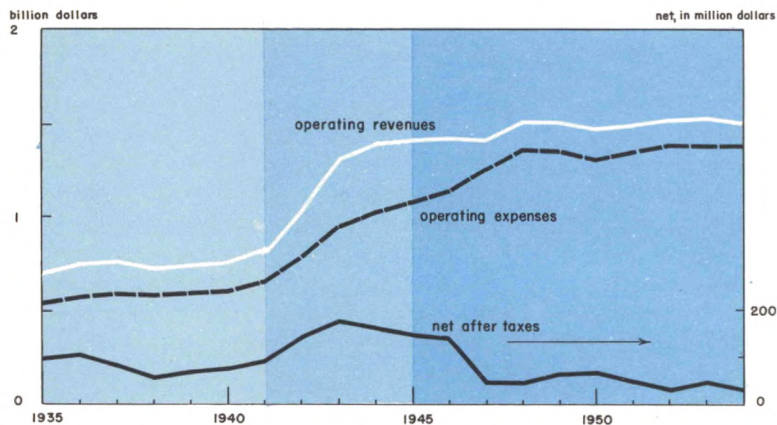
A crushing blow is that, on top of everything else, the character of traffic has changed. That is, instead of traveling via buses, streetcars, subways and suburban railroads, commuters have switched to their own automobiles. The impact on street capacities is appalling, for five cars which altogether carry no more than seven passengers in rush hour occupy the same street space as a bus which carries fifty passengers. And subways and suburban railroads do not use the streets at all, but their own right of ways. When we reflect that the capacity of a single lane of an expressway is about 2,600 passengers per hour and that of a right of way of similar width used for rapid transit trains is 60,000 passengers per hour, it is no wonder that cities are fighting a losing battle against congestion.

These trends have been in evidence since the 1920's, but conditions have become much worse since the end of World War II. During the War, restrictions on automobile use caused bus and streetcar riding to soar, even above the highs of the mid-Twenties. Today, however, local transit lines are used only about two-fifths as much per capita as in 1944 and 1945. Although there are at least 15 million more people living in suburban areas, commuter railroads have less than three-fifths as many passengers as in the Twenties. On the other hand, motor vehicle travel in cities is about 75 per cent more than just before or just after

The transit industry's problem



During World War II, transit passenger volume nearly doubled. Even though fares increased very little, gross revenues soared, and since expenses increased much more slowly, net revenues tripled.



Since 1946, on the other hand, passenger volume has dropped by nearly half. Meanwhile, average fares have doubled, so gross revenues have been maintained. However, costs have increased sharply, and net revenues have dropped well below levels of the 1930's.

World War II, and the number of vehicles on the road is close to double what it was then.

Autos vs. transit

In a sense, the successful experience of transit companies and suburban railroads during the War (see the accompanying charts) bred their current troubles. In the early days, like the railroads, transit companies were spectacularly successful but, again like the railroads, were frequently so organized financially as to be highly vulnerable to depression and the development of competitive transport media. Thus, by the 1930's, the transit industry was in

poor shape, with many companies falling into public ownership by default and with all companies operating with antiquated equipment.

During the War, traffic increased faster than costs, which helped. But this meant using worn-out equipment intensively, and its replacement after the War could no longer be postponed, even though the costs of new equipment were higher and rising. So the industry had to re-equip at high costs just at the time that its business was bound to decline as tires, gasoline and new cars became readily available once again to riders who were virtually captive customers in wartime.

This was the beginning of a cruel dilemma for transit operators. They had slight chance to hold their riders with the poor equipment still in use, and there were long delays in buying and putting new equipment into service. Meanwhile the increased congestion resulting from increased use of automobiles slowed down even modernized transit service so much that it was difficult to retain riders, much less win back those already lost, despite the new equipment. The higher wages, higher costs for the new equipment and declining passenger volume forced transit operators to raise fares repeatedly, thus driving away still more passengers, increasing automobile use and congestion and slowing down transit service even more.

The carriers' financial plight

So the companies and public agencies which provide local passenger transportation service have been fighting depression while the rest of the economy has been experiencing unparalleled prosperity. As the charts indicate, transit companies typically are now even worse off than they were during the depression. For the 1,600 odd public and private operators as a whole, the return on investment is in the neighborhood of 1 per cent. This is much too small to attract investors in a competitive economy and if long maintained will doubtless result in more public ownership. Not that public transit systems do any better—only a handful of the publicly owned systems have been able to operate consistently in the black in postwar years. Some of the biggest systems, like New York's and Boston's, lose money even after heavy subsidies, and nearly all benefit from a variety of indirect subsidies. What public ownership frequently does is to transfer the subsidy from the shoulders of the private company's owners and creditors to those of the community's taxpayers.

Even though they have raised fares more on the average, suburban railroads have done little better. Total passenger revenue is less than 10 per cent above the levels of the late 1920's, yet nearly everything the roads buy—labor, fuel, equipment, local government services—

costs two or three times as much now as it did then. Of course, this poor showing is characteristic of many railroads' long-distance passenger services, not just the suburban lines, though the latter situation is much worse. Here the subsidy is borne by shippers and purchasers of railroad freight, the profits on which sustain unprofitable passenger service. It's hardly surprising that a situation in which farmers in Iowa subsidize commuters in Chicago satisfies no one.

Both transit operators and suburban railroads have responded to their difficulties by reducing service substantially, particularly during off hours. However, this does not reduce costs anything like proportionately, and frequently it generates larger declines in traffic than the operators anticipate.

Solutions

What to do about congestion is a really thorny problem. For one thing, some of the "obvious" solutions help out in some ways, but make things worse in other ways. For example, when an expressway serving downtown sections is built, provision can be made for operating transit vehicles on it, either by building in bus stops and stations or by laying rapid transit tracks in the center, as in the case of the Congress Street expressway in Chicago. This is bound to benefit transit lines to begin with because a fast trip downtown on an expressway, even on a bus, is attractive and will bring in more customers. Since transit vehicles use the street network so efficiently, any increase in transit use is to the good. On the other

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hand, a new expressway is likely to increase the number of cars coming downtown at the same time, since the reduced congestion encourages motorists to drive to work. But once they reach the end of the expressway, congestion is likely to be even worse on the downtown streets, and this will slow up service and drive away customers on transit lines not benefited by the new expressway.

Essentially what happens in a situation like this is that the capacity of a section of the street plant is increased while the volume of traffic also increases. Part of the increased traffic spills over into streets whose capacity has not been increased. Since it is virtually impossible to increase the capacity of all streets at the same time, the solution to downtown congestion really lies in holding down traffic increases while street capacity is increased. In practice, this means getting people to switch back to transit. This is a very hard thing to do, although the bad features about transit that repel customers—slow service, uncomfortable rides and high prices—are typically not really as bad as people think. That is, commuting takes as long or longer via private cars, new transit vehicles have made riding a lot less unpleasant, and fares typically have risen no more than the costs of driving to work.

Nonetheless, the private automobile is a tough competitor of other means of getting to work. Car ownership is nearly universal. A person who finds car ownership necessary, as most people do, does not allocate such automotive costs as insurance, depreciation and servicing to each trip he makes. Thus, to the average motorist, the costs of commuting via car include only the outlays for gasoline and parking fees. He compares these direct costs with transit or suburban railroad fares. Even in a big city, gas and parking fees may be no more than twice fares, and the disparity is substantially less for the thousands who work outside the central business district where parking is cheaper or even free. If car pools are used, such direct costs may be even less than fares. And regardless of costs and congestion, driving to work is frequently more

comfortable and more satisfying than riding on public vehicles.

The fare structure itself is to blame for part of the transit industry's problem. No other industry offers a wide variety of services produced under widely differing cost conditions at a single uniform price. But whether you ride on transit lines when equipment is used to capacity at rush hour or at off hours when there is a lot of extra capacity or whether you ride for one mile or ten, in most cities you pay the same fare. In some cities, you even pay the same fare whether you ride on expensive new subways or ramshackle old streetcars. There are some grounds for believing that adjusting fares to reflect different situations of rider demand and costs would increase both traffic and revenue. This means such things as zone fares and higher fares for premium service.

To a great extent, the problem for central business districts is one of devising financing methods which will help ease congestion while still being roughly fair to all parties involved. Of course, even now, there are instances in which both public and private operators, by dint of wise management involving good service on modern equipment, are holding their own. But to actually win back passengers would no doubt require reduced fares across the board. It is hard to see how any such adjustment could be made.

Congestion on routes serving clusters of factories and stores other than those in the central business district can be substantially alleviated even without winning passengers back to transit. Arteries outside the downtown sections can be greatly improved, rapidly and at far lower costs than in the center of town. So even though traffic to the outlying focal points of employment consists mostly of private autos, public agencies which plan imaginatively and act boldly can solve this aspect of the congestion problem. In any case, it would be pointless to count on these commuters to switch to transit. This is partly because transit services to outlying sections are inevitably poorer than those to and from down-

town. Also, as we have seen, the costs of commuting via car to jobs in outlying sections are frequently not much more than transit fares.

Adequate traffic arteries can produce impressive savings in commuting time to the person using surface transportation to and from work. In a large sprawling metropolitan area like Chicago, large numbers of people travel 10 miles or more each way to and from their jobs. On many of the snarled major streets today, traffic averages no more than eight or nine miles an hour over long stretches. If he is lucky, a person who must use these streets part of the way might average 12 miles per hour on his whole trip. On the other hand, adequate arterial streets would make average speeds of 20-25 miles per hour feasible, and expressways even at rush hours should permit average speeds of over 30 miles per hour. On a 10 mile trip, this can mean daily savings of an hour or more—in effect a reduction in the working day of an hour or more.

As a matter of fact, the reduction in the work week which has accompanied the enormous progress of the American economy in the past few decades has, for city dwellers, been

in part offset by the increase in the time it takes to get to and from work. In coming years, it is virtually certain that metropolitan areas will continue to spread out and their traffic will continue to grow. This lengthening of the average distance between jobs and homes, together with more traffic, spells further increases in commuting time. If the third of our population who live and work in and around the country's big cities are really to benefit from the future reductions in the work week which modern technology will permit, public agencies must take vigorous action to alleviate urban congestion.

By itself, this would be sufficient reason for investing hundreds of millions of dollars in roads and other transport facilities in urban areas. But making driving to work quicker and more pleasant is not the only or even the main reason for large-scale improvements. The main reason is that smooth and fast movement of both passengers and freight is essential to an expanding economy. To paraphrase what has been said elsewhere, "Industrial communities, like pedestrians, are divided into the quick and the dead." None of our cities is vying for the latter distinction.

The local transportation industry

Local transit lines—buses, streetcars, subways and elevated lines—carry about 10 billion passengers annually at fares averaging close to 14 cents per ride. About a quarter of these passengers ride on rapid transit lines, which only four cities have—New York, Chicago, Philadelphia and Boston. Although there are over 1,600 transit companies, fewer than 50 cities operate publicly owned transit systems. These, however, include some of the very largest cities—in fact, one out of every three of the nation's 20 biggest cities own their principal transit lines. So the publicly owned transit systems account for more than 40 per cent of the total volume of business done by the transit industry and about 60 per cent of its 2.5 billion dollar total investment.

Suburban railroads, which are important carriers

only in a few of the bigger cities and in almost none of the smaller ones, carry about 250 million passengers annually, mainly between suburban communities and central business districts, at fares which average close to 35 cents per ride on commuter tickets.

In the country's cities over 500,000 close to half of the working population get to work by private automobile rather than by any form of public transportation. This is despite the fact that some of these cities are served by both rapid transit lines and suburban railroads, which are usually better able to compete with autos than bus and streetcar transportation. In smaller cities, the public carriers account for substantially smaller portions of the total travel to and from work—less than 20 per cent in cities with fewer than 25,000 inhabitants.