

BUSINESS CONDITIONS

A REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO



FEDERAL RESERVE BANK OF CHICAGO
LIBRARY
MAY 2 1950

Balance Sheet of Agriculture

Farm Asset Values Decline, Liabilities Continue Rise

Farm asset values decreased in 1949 for the first time in more than a decade while farm liabilities continued the rise which has been under way since 1946. As a result, proprietors' equities were reduced 5.1 billion dollars.

Physical assets of agriculture on January 1, 1950, were valued at about 102 billion dollars and financial assets at slightly over 21 billion. The combined total of 123 billion dollars represents a decline from last year of 3.4 per cent; however, it is still more than two and a fifth times the prewar figure for 1940. Owner equities in these assets approximate 111 billion dollars, down 4.4 per cent from January 1, 1949, but 154 per cent greater than prewar 1940. In previous years asset values increased largely as a result of rising prices. The tapering off from the postwar peak reflects primarily lower market values of real estate, livestock, and stored crops.

The 1949 decline of four billion dollars in real estate values was the major contributing factor in the lowering of farm assets. Seventh District declines during the same period have been somewhat more moderate. Actually some areas registered increases—generally those of exceptionally productive soil or where farm income has been relatively well maintained.

Livestock values on January 1, 1950, were 13.2 billion dollars, 10 per cent less than the record of a year ago. The decline was due entirely to lower prices since actual livestock numbers increased two per cent. For the Seventh District the value of livestock fell almost one per cent more than that for the United States. Crops stored on and off the nation's farms declined nine per cent in value.

Machinery and motor equipment represent the largest offset to the decline in asset values with a 20 per cent increase. This is to some extent a bookkeeping entry as prices of new machinery in 1949 were the highest on record. The physical quantity of machinery and equipment on farms, however, increased about 11 per cent during 1949 with farmers purchasing more than replacement needs. Household equipment value increased by about three per cent.

The financial assets of agriculture expanded from only five billion dollars in 1940 to a high of almost 22 billion on January 1, 1948, and as of January 1, 1950, totaled 21.2 billion. The decrease in 1949 was almost one per cent. Deposits and currency dropped 800 million dollars or five per cent, continuing the decline started in 1948, while investments in savings bonds and cooperatives were up 1.5 per cent and three per cent, respectively. Information available indicates that the trend in demand deposits in country banks for the Seventh District is about the same as for the United States while time deposits declined relative to that for the nation. A decrease in total deposits was more evident for Wisconsin and Michigan than for other states in the Seventh District. This trend in finan-

cial assets of agriculture reflects very largely the changes in net income of farm operators, which reached a record high of 17.8 billion dollars in 1947, followed by declines of six per cent in 1948 and 17 per cent in 1949.

All liabilities rose during 1949—real estate mortgages and non-real-estate debt each increased seven per cent—a total of 776 million dollars.

Mortgage debt on the nation's farms increased for the fourth successive year. The increase has been greater for each succeeding year, but the mortgage debt is still 17 per cent less than for the year 1940. Payments on debts have declined chiefly because of expenditures made by farmers for equipment and improvements and because of higher living costs.

Farmers' non-real-estate debt increased 434 million dollars in 1949. Excluding loans held or guaranteed by the Commodity Credit Corporation, short-term debt increased eight per cent compared with 20 per cent in 1948. Preliminary estimates for the Seventh District show a similar increase in short-term debt.

If expressed in terms of the 1940 price level, the balance sheet of agriculture would reflect only changes in quantity. Shown in these prices the amount of physical assets from 1940 to 1950 increased 38 per cent; financial assets excluding investment in cooperatives, 139 per cent; equities, 38 per cent; and liabilities decreased 48 per cent.

BALANCE SHEET OF AGRICULTURE
JANUARY 1, 1950, WITH COMPARISONS¹
(Dollar amounts in millions)

| Item | Jan. 1, 1940 | Jan. 1, 1949 | Jan. 1, 1950 ² | Per Cent Change 1949-50 | Per Cent Change 1940-50 |
|---|--------------|--------------|---------------------------|-------------------------|-------------------------|
| ASSETS | | | | | |
| Physical assets: | | | | | |
| Real estate..... | 33,642 | 65,168 | 61,200 | -6.09 | +81.92 |
| Non-real-estate: | | | | | |
| Livestock..... | 5,133 | 14,657 | 13,211 | -9.87 | +157.37 |
| Machinery and motor vehicles..... | 3,118 | 11,114 | 13,390 | +20.48 | +329.44 |
| Crops, stored on and off farms ³ | 2,645 | 8,475 | 7,700 | -9.15 | +191.12 |
| Household equipment..... | 4,275 | 6,000 | 6,200 | +3.33 | +45.03 |
| Financial assets: | | | | | |
| Deposits and currency..... | 3,900 | 14,800 | 14,000 | -5.41 | +258.97 |
| United States savings bonds..... | 249 | 5,024 | 5,100 | +1.51 | +1,948.19 |
| Investment in cooperatives..... | 826 | 2,036 | 2,100 | +3.14 | +154.24 |
| Total..... | 53,788 | 127,274 | 122,901 | -3.44 | +128.49 |
| CLAIMS | | | | | |
| Liabilities: | | | | | |
| Real estate mortgages..... | 6,586 | 5,108 | 5,450 | +6.70 | -17.25 |
| Non-real-estate debt: | | | | | |
| To principal institutions: | | | | | |
| Excluding loans held or guaranteed by Commodity Credit Corporation..... | 1,504 | 2,714 | 2,900 | +6.85 | +92.82 |
| Loans held or guaranteed by Commodity Credit Corporation..... | 445 | 1,152 | 1,200 | +4.17 | +169.66 |
| To others..... | 1,500 | 2,200 | 2,400 | +9.09 | +60.00 |
| Total..... | 10,035 | 11,174 | 11,950 | +6.94 | +19.08 |
| Proprietors' equities..... | 43,753 | 116,100 | 110,951 | -4.44 | +153.58 |
| Total..... | 53,788 | 127,274 | 122,901 | -3.44 | +128.49 |

¹The margin of error of the estimates varies with the items.

²Preliminary estimate.

³Crops on farms and held in warehouses as security for CCC loans.

SOURCE: Bureau of Agricultural Economics, U. S. Department of Agriculture.

Current Mortgage and Housing Developments

Financial Arrangements Dominate Home-Building Outlook

The housing boom ranks as one of the most important factors supporting current high levels of business activity, both in the Midwest and in the nation generally. It is to be expected, therefore, that considerable interest would be evidenced in questions concerning it. The one-fourth per cent reduction in FHA interest rates, combined with increases in the percentage of appraised value covered by mortgage insurance under the new housing act, seem certain to have significant effects upon future housing and mortgage developments.

How long can this boom be expected to last? How important is mortgage finance in determining the future levels of effective housing demand, and what are the prospects for financial arrangements favorable to a continuing boom level of building? Will the newly-enacted Housing Act of 1950 stimulate or dampen apartment building? Are construction costs now stabilized and are home buyers and mortgage lenders convinced that a new long-run price structure for homes has been established? Will the relative position of residential construction in the Seventh Federal Reserve District, in comparison with the rest of the nation, continue the improvement observed during the last six months? Answers to these and related questions are of particular importance to Midwest home builders and mortgage lenders.

A national total of one million or more new houses per year for the next several years would go far toward supporting an extended high volume of general business. Although direct expenditures for housing construction comprise only about three per cent of the gross national product, there are important subsidiary effects from this kind of activity. New homes must be furnished, and this requires heavy outlays for furniture, floor coverings, and draperies. Increased demands for major household appliances and fixed home equipment also are created.

A large volume of residential construction also is accompanied by development of raw land. This calls for substantial expenditures for streets, sewer systems, water and gas mains, telephone and power connections, and schools and other community facilities.

Whether a home-building total of a million a year or more will be continued through 1950 and perhaps into future years depends in large part upon availability of mortgage credit. In the main, postwar residential construction has been financed on a low equity, high loan basis. About half of all dwelling units started in 1949 were financed under FHA and VA programs which generally carry long maturity mortgages covering 80 per cent or more of the cost. Despite the very large aggregate holdings of liquid assets by individuals, it appears that a substantial fraction of the families needing housing facilities either are not in possession of sufficient liquid asset holdings to make substantial equity payments or

are unwilling to use their assets in this way.

Effective housing demand, it appears, must rely heavily upon the continued making of mortgages on high loan-to-value ratios. Moreover, the willingness of many lenders to make a marginally important volume of such loans is conditioned by Government programs for insuring or guaranteeing a part of the risk on these loans, as is evidenced by the chronic requests on the part of various pressure groups to have these provisions liberalized and extended.

CURRENT HOUSING BOOM

Approximately three and one-half million permanent nonfarm homes have been built since the end of the war. A high proportion of these—83 per cent—are single-family structures, and nearly all of them—98 per cent—were privately financed. The period 1923-1926 produced almost exactly the same total of new dwelling units as the four years 1946-1949, but the greater emphasis on rental units during the earlier building boom resulted in a smaller fraction—59 per cent—of the units being built as single-family structures. Public housing was not a factor in the boom of the 1920's, since no public units were constructed prior to 1935.

Perhaps the most interesting postwar year from the standpoint of residential developments was 1949, in which substantial increases in starts during the last half of the year upset earlier expectations. During the general business decline of early 1949 most observers—including the official forecasters in the U. S. Departments of Commerce and Labor—felt that building volume for the year would be somewhat below 1948's total. Starts during the first half of 1949 were disappointing by comparison with the same months of 1947 and 1948. These estimates of future prospects, however, fell short of the actual performance which turned out to be of record proportions—an estimated 1,025,000 dwelling units. This all-time high volume was in small part the result of a doubled volume of publicly-financed dwelling units, but in much greater part it reflected liberalized financing terms which were legislated during July and the revival in general business confidence which developed as the year progressed.

An important factor contributing to the record number of starts in 1949 was the trend toward construction of cheaper dwelling units on the part of many builders. The willingness of builders to cater to the less than \$10,000 market combined with the liberal financing arrangements and increased emphasis on multi-family units explains most of the unseasonally large number of housing starts of last fall and winter and the early months of 1950.

A further influence causing the high volume of last

year was the apparent belief—particularly on the part of many potential home buyers having substantial liquid asset holdings—that prices and construction costs had stabilized and might move upward and that there was no use waiting for them to drop to lower levels (see Chart 1). This sector of housing demand, which is difficult to analyze and quantify, may well continue into the future months as a strong supporting force toward a high level of housing activity, and is, of course, less dependent upon liberal financing terms.

An important aspect of all postwar home building is the tendency toward very small single-family homes and “efficiency” apartments. This development has been essentially in response to high building costs and legal limitations upon mortgage insurance, since by this means the price of the “house” can be kept within loan limits. Also, the secular trend toward smaller families during the decade of the 1930’s meant that much of the housing demand preferred this smaller housing unit.

Postwar birth rates and population developments, however, indicate a reversal of this earlier trend toward smaller families with the result that current housing need is more heavily in the three-bedroom category. Home builders will be required to use considerable ingenuity in supplying this potential market for larger houses within a price structure that such families can afford.

Many mortgage lenders are deeply concerned over the postwar emphasis upon very small dwelling units. It is generally agreed that with the exception of the “green lumber period” most houses built during the postwar years conform to high structural standards. Nevertheless, great concern is voiced in some financial quarters about the adequacy of these very small houses for living needs. With present day high mortgage loans and long maturities, lenders must consider not only the structural quality of the building but also its usefulness as a dwelling unit. Many of them feel that in certain areas the four-room single-family detached house and the efficiency apartment already have been overbuilt. This, however, would not be taken to mean that a substantial market for more adequate dwelling units might not exist in these areas.

SEVENTH DISTRICT BUILDING TRENDS

During the second half of 1949 and the first quarter of 1950 the volume of both mortgage recordings and housing starts in the Seventh Federal Reserve District increased relative to their previous position in the nation. Throughout the last half of 1949 more than 18 per cent of the dollar volume of new housing construction in urban areas was authorized in Seventh District States as compared with approximately 15 per cent in the earlier postwar period. Nonfarm mortgage recordings, however, registered less than a one per cent relative gain—from 16.7 per cent to 17.4 per cent—possibly indicating that real estate activity in existing homes did not increase proportionately with new building.

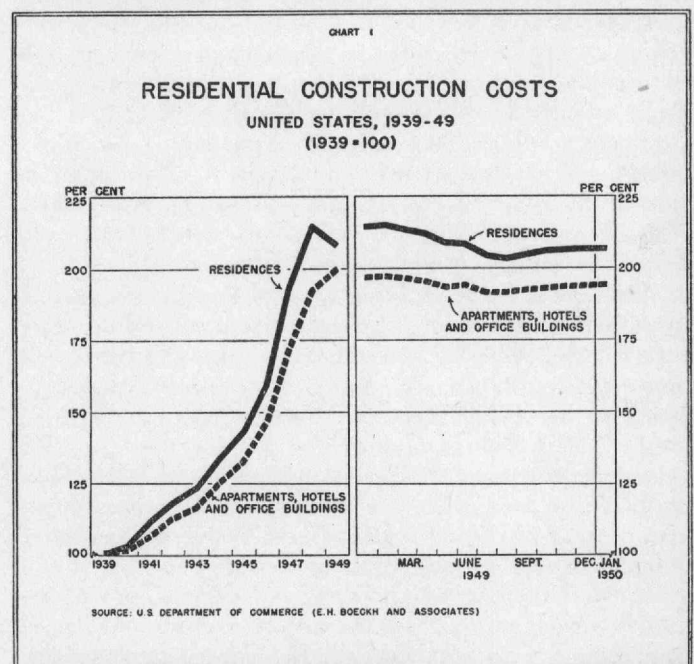
It commonly has been observed that residential building in the Midwest has failed to keep pace with the

boom nationally but that nonresidential construction has maintained its expected comparative position. To some extent this was to have been expected in view of the greater relative importance of manufacturing in this section and the heavier population growth in other parts of the nation, such as the South, Southwest, Pacific Coast, and such Eastern cities as New York, Baltimore, and Washington. The greater emphasis upon manufacturing in the Seventh District appears to have resulted in a considerable net in-migration of workers whose housing needs are very great but whose incomes and asset holdings are not sufficient to buy homes. This is especially true of the Negroes who migrated to Midwest cities during the war and many of whom have remained.

Among the District’s principal cities, only Detroit has had a housing boom large enough to rank it with the leading cities of the nation. Two reasons seem to account for Detroit’s record: (1) the area experienced a considerable population growth over the last two decades and, therefore, had a greater backlog of demand and (2) builders there have been more successful in achieving a low-cost house. Average cost per new house in Detroit during 1949 was about \$8,300 compared with about \$10,800 in Chicago, or 23 per cent less. Wage rates and general prices in the two cities are more comparable.

It is particularly to be noted that apartment building still is lagging in major Midwest cities. Available data indicate that in the District’s two largest industrial areas—Chicago and Detroit—rental-type housing comprised only 17 per cent of all housing built during 1949 in the former, and seven per cent in the latter. Of the 15 major metropolitan areas in the nation for which data are available, none shows as small a proportion of rental-type units as these two.

During the last few months of 1949 and early 1950, heavy commitments in Chicago under Section 608 of the National Housing Act indicate that steps were being taken to alleviate this shortage of new rental-type struc-



tures in the District's largest city. Most of these commitments will be built during the current year. However, greatly increased building of multi-unit structures, both in Chicago and in other major cities of the District, will be required if a "reasonable" balance between new rental facilities and new single-family houses is to be approached. In 1940 rental-type structures comprised 70 per cent of all existing dwelling units in Chicago. In Detroit the proportion was 47 per cent.

Under the previously existing Section 608, FHA could insure 90 per cent of the entire *project cost* if the cost per apartment did not exceed \$8,100. Even these liberal terms did not stimulate much activity in the Seventh District until the last few months of Section 608's life. Section 207 as now amended permits FHA to insure 90 per cent of the first \$7,000 of *appraised value* per unit and 60 per cent of the next \$3,000. These provisions obviously will entail larger equity outlays by the owner and seem unlikely to be attractive in the face of competition from controlled-rental buildings.

CAPITAL MARKET TRENDS

The supply of capital available for mortgage and most other consumer financing needs has increased substantially during the last 18 months. This increase reflects primarily the lessened commercial and industrial demands for funds after the completion of most postwar expansion plans and contracted requirements for working capital resulting from the end of the price inflation. However, the increased supply of capital funds stems in part from expanded savings in the form of insurance reserves and pension and retirement fund balances, as well as a continued rise in time deposits and savings and loan share accounts. It is in answer to these supply and demand factors that basic interest rates have followed a general, though not always continuous, downward course in the last year, a trend which will be furthered by the reduced FHA rates.

The underlying change in the capital market has resulted in an increased availability of funds for mortgage lending purposes. During late 1947 and early 1948 heavy demands for funds in the capital markets resulted in a rise in yields on both corporate and municipal bonds, as well as rising interest rates on loans. In this competitive market, mortgage loans—particularly the four per cent loans guaranteed by the Veterans Administration—were considered by many financial institutions as noncompetitive investments, and in fact the market for this paper came close to drying up completely. It was commonly said at that time that home-building prospects were in jeopardy because of the low rates on guaranteed mortgages. The subsequent decline in demand for funds and the concomitant increase in the supply of available capital now has changed that situation, and numerous financial institutions both large and small have become more interested in four per cent loans.

However, in the home mortgage field costs of acquisition, servicing, and reserves for bad loans are very high, and, therefore, the net return which can be expected from

a four per cent mortgage is little better than the return from a Government or corporate bond. A recent study of mortgage costs by the National Bureau of Economic Research revealed that acquisition, servicing, and reserve costs total 1.33 per cent for the mortgage portfolios of commercial banks and 1.5 per cent for insurance companies. This means that the net return on a four per cent mortgage would be between two and one-half and three per cent, a range within which there are still many competitive investments carrying less risk.

It is sometimes taken for granted that a financial institution carries no risk whatever on a guaranteed or insured mortgage loan. However, this is not strictly true since less than half of all outstanding mortgage money is on loans covered by insurance or guarantee. Virtually all mortgage lenders make many loans of the conventional type, that is, with neither guarantee nor insurance. Very naturally, each lender will be concerned with the possible effects of new construction upon the property values supporting his existing portfolio.

Equally important with risk of ultimate loss is the factor of delay which would almost certainly accompany a period of widespread mortgage foreclosures. Neither VA nor FHA has gone through such a period, and, therefore, the problems of processing large numbers of claims in a falling market are not known. The mere action of foreclosure, however, is time consuming, and there can be little question that the processing of claims in large numbers would necessarily be slow. In addition to these factors, foreclosure proceedings must be undertaken in most cases by the lending institution, and it is they who would reap the adverse public relations inevitably accompanying such a process.

In view of these factors, it is understandable that lenders would consider the long-run worth of the loan, irrespective of Government guarantee or insurance. In other words, most lending institutions could not follow the policy of making any and all mortgage loans simply because they were eligible for Federal insurance or guarantee. Rather, these lenders—who usually have a keen feel for the effective demand in their own localities—prefer to make only such loans as show promise of soundness, both from the standpoint of the long-run value of the property itself and also the ability of the mortgagor to meet his amortized payments.

It is within this framework that present day mortgage lending is carried on, and it is because of these considerations that the Federal Government has found it necessary to establish a market through FNMA for loans which it already guarantees. Looking toward the future it is probably safe to say that the Government will find it necessary to continue this mortgage-buying agency into the future years if still more liberalized credit arrangements are to be the principal support for high-level residential construction.

OUTLOOK UNDER NEW HOUSING ACT

Although the prospect for mortgage lending and home building in the Seventh District, as in other parts of the

nation, will be clouded until final interpretation of the recently-passed Housing Act of 1950, the current year gives promise of exceedingly high mortgage and home-building volume. First quarter starts are estimated to be nearly 60 per cent higher than the total for the first three months of 1949. Scattered reports indicate that speculatively built homes which were started last fall and now are reaching completion are finding a ready market. Continued strength in this market should result in a volume of homes built for sale at least equal to that of last year. Public housing volume is expected to reach about 80,000 units in 1950, and this, of course, will swell the over-all total of dwelling units built, although it will have no direct effect upon mortgage volume.

Recent estimates by the U. S. Department of Commerce place the still-existing national backlog of housing demand at a figure between one million and two and one-half million dwelling units. Since 5-6 hundred thousand new houses per year are required to satisfy the "normal" increment of families needing shelter, these estimates of backlog indicate a two to five year span during which a million houses per year might be demanded. Such estimates necessarily are rough and depend upon such imponderable factors as the desire of doubled-up families to have living quarters of their own and the number of houses needed to provide an "adequate" vacancy ratio. Nevertheless, they do offer evidence that a high volume of new housing demand will exist provided the price and financing arrangements are mutually acceptable to the buyer and the financing institution. Confirming the likelihood of basic demand strength, recent announcement by the Federal Reserve Board states that about one million consumers indicate intentions to buy new homes in 1950.

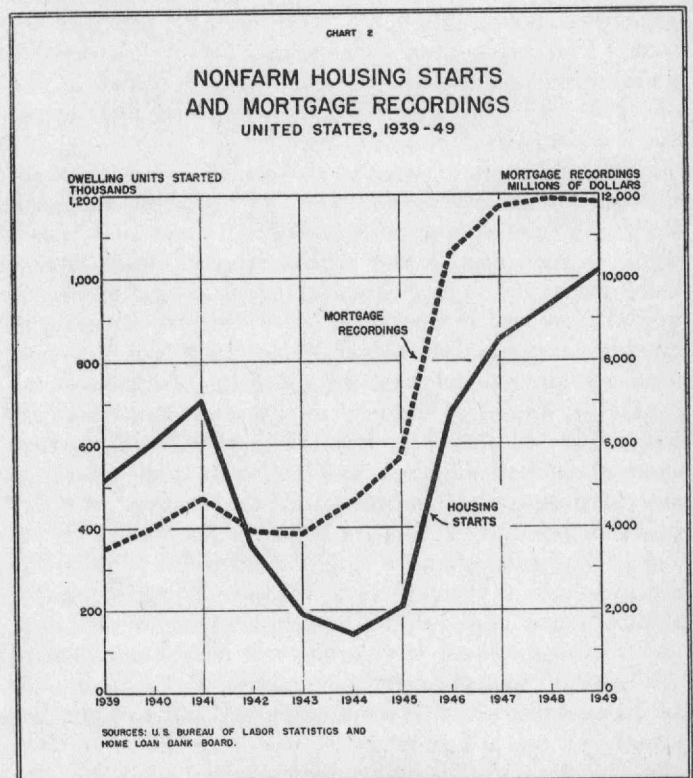
The newly-passed legislation seems likely on balance to stimulate further easing of mortgage credit. Along with the rate drop it calls for still easier terms for single-family construction and home purchase, but somewhat tighter provisions for apartment construction, although this may not become evident immediately because the "bank" of commitments carried over from Section 608 about equals all starts under this section during 1949. A total of approximately four billion dollars of additional housing credit is authorized by the new Act, and in some cases these authorizations are for entirely new programs.

Perhaps the most significant development affecting the total volume of rental-type housing is the expiration of Section 608, National Housing Act, and the newly-enacted amendments to Section 207. Whereas it was formerly possible for promoters of apartment building projects to obtain insurance on virtually all of the construction cost by building of "efficiency" apartments, it will be necessary under new commitments for the builder to supply a substantial amount of equity money. This equity investment will total about 20 per cent of the project cost if the average cost per unit is \$10,000 and if FHA appraisals approximate actual construction costs. To the extent that appraisals are below construction cost a greater proportion of equity money would be needed, but the Act is so drawn as to encourage apartments averaging less than \$10,000 per unit.

Since there is a specific attempt in the newly-passed law to encourage construction of homes having 3-4 bedrooms, there is some possibility that this large potential market may be tapped to a greater extent in the present year. Persons building homes containing three bedrooms may obtain insured mortgages covering 95 per cent of the first \$8,500 of appraised value, and this provision may make home building financially feasible for numerous families who were previously unable to go ahead.

The Federal National Mortgage Association will continue to buy mortgages, which are insured by FHA or guaranteed by the Veterans' Administration, up to the new limitation of 2.75 billion dollars of total holdings. Because of the limitation this year's total purchases probably will be smaller than the nearly one billion dollars used in 1949. Nevertheless, the probable effects of the new legal limit are not entirely apparent, since Fannie Mae's success in selling mortgages now in its portfolio makes possible a greater buying program in 1950 than would be indicated by the fact that only 250 million dollars of additional funds were voted to the agency.

Whether the Seventh District will continue to improve its relative position in home building, as compared with the nation as a whole, during the present year depends importantly upon the volume of rental-type units which are built. Although the expiration of Section 608 may have a longer-run dampening effect upon apartment building, commitments made prior to the expiration seem likely to assure a much larger total of rental units than were built last year. This prospect, in addition to the expected volume of single family construction, seems likely to increase the Midwest's standing in the national housing totals.



Business Inventories and the Business Cycle

No Heavy Liquidation Likely in '50

By the beginning of the second quarter the nation's business was well on its way toward a fulfillment of the "good first half" prophecies of last December.

Whatever difficulties lie ahead, prosperity has not been threatened seriously so far in 1950 by the type of inventory liquidation evident last year. In fact, one basis for the favorable trend in production early in the year was the reduced level of inventories held by manufacturers and trade firms. The coal and steel strikes, cautious inventory policies, and high consumer spending during 1949 had worn stocks down to a point where reordering was necessary in many lines to rebuild inventories to meet adequately anticipated sales volume. On the other hand, no important over-all inventory increase is likely. Trade firms are continuing to buy carefully, believing that most prices have not yet undergone sufficient readjustment.

INVENTORIES SLASHED IN 1949

Overcautious inventory policy in the first half of last year threatened to turn a moderate dip in business activity into a full-scale downturn. From 1945 through 1948 business inventories rose steadily as a result both of higher prices and larger physical volume. In January of 1949 total inventories on a seasonally adjusted basis reached 58.5 billion dollars, an all-time peak. By the end of the year they had declined 4.7 billion dollars, or eight per cent. About the same proportional decline occurred in physical industrial output during 1949.

Well into 1949 manufacturers, retailers, and wholesalers marked time, allowed their stocks to run off, and waited to determine whether a real depression or a substantial decline in prices would develop. However, consumers continued to buy, showing no desire to retrench in the expectation of any serious trouble ahead. Retail sales were remarkably steady at high levels all during 1949. The total for the year was 128 billion dollars, off less than two per cent from 1948, and physical volume was somewhat higher. Over 5.1 million automobiles and about 2.8 million television sets were produced and absorbed by the markets. Sales of household appliances, clothing, and shoes, which had been hit earlier than business generally, began to revive.

Demand in 1949 was no longer a matter of war-induced backlogs or a need to "fill the pipelines." Instead, general business activity rested on a firm base of consumer demand and income far above prewar levels. By mid-summer of last year many firms were finding their stocks inadequate, and new orders began to increase. Six months of attrition had carried inventory depletion further than could be justified by sales prospects. Lags in the restocking process, plus the effects of important strikes in the

fall, caused inventories to continue to decline through the remainder of 1949.

INVENTORY CHANGES AND BUSINESS CYCLES

Inventory changes can have a dramatic effect upon general business conditions. The downturns of 1920 and 1937 were, to say the least, aggravated by unwarranted accumulations of stocks and their subsequent liquidation. After the first world war merchants scrambled for goods with the hope of achieving speculative gains. This activity plus high levels of consumer demand caused prices to rise to unprecedented heights. When prices fell sharply in 1921 they carried the wreckage of many enterprises down with them.

In 1936, a revival of business confidence brought an overexpansion of inventories. This unstable type of business expenditure came to an end in the middle of 1937 and the process was reversed. Goods were sold from inventory and production was cut back. Many observers referred to the situation as an "inventory recession."

When inventories are rising the net additions are an increase in the demand for goods beyond current consumption. Usually, the desire to increase stocks comes at the same time that retail trade is brisk. The result is greater upward pressure upon prices, and as they rise a speculative motive for further inventory accumulation is introduced. When inventories are falling they are reacting to the expectations that sales at the retail level are going to drop off. Additional goods are offered on the market when they can least easily be absorbed. An inventory-price-deflation spiral results, for at the same time less money is being placed in the income stream through the productive process. Inventory decisions influence prices and, in turn, are influenced by them.

Changes in inventories lag about six months behind changes in sales. There are two main reasons: (1) inventory accumulation or decline is influenced by the momentum of the productive process and the level of outstanding orders, and (2) price changes are immediately reflected in sales but not in inventory book values. This lag was evidenced in previous business crises. In 1930, inventories did not turn down until the second quarter. In 1932, sales picked up near the end of the year, but inventories continued their downward course until mid-1933. In 1948, total business sales reached their peak in September, but inventories continued to rise into January of 1949.

Businessmen constantly make decisions which are based upon an evaluation of the economic outlook, and these very decisions have an important effect upon actual developments. Capital expenditures are usually given foremost attention in discussions of the effect of business

plans and attitudes upon the cycle. There is an unfortunate tendency to underestimate the importance of inventory policy. Outlays on capital goods and inventory accumulation both involve great increases in business spending in boom times. On the way down, capital expenditures, however far they may be reduced, still provide some positive stimulus, but inventory accumulation gives way to net liquidation. When inventories are allowed to run off, the depressing consequences may be enormous. Sales exceed production, and the effect is similar in some respects to a large net increase of imports from abroad.

In 1930, the first year of decline after the prosperity of the twenties, spending on producers' durable equipment (an important part of capital spending) was 1.5 billion dollars less than in 1929. When the inventory liquidation in 1930 is added to the net accumulation of 1929, the total is 1.8 billion. Inventory changes were evidently more important in furthering the depression in its early stages than the drop in spending on producers' goods. A more striking example is offered by the 1937-38 downturn. In 1938, producers' durables again dropped 1.5 billion dollars, but inventory spending declined 3.1 billion, or almost twice as much. Last year, producers' durables fell only one billion dollars, but the cut in inventory spending reached the impressive total of 8.8 billion. The fact that this change in business spending could be absorbed without disastrous results is an optimistic commentary on the inherent stability of the economy today.

In the postwar period, speculative inventory accumulation did not reach serious proportions, and stocks never became very heavy when compared to sales. Any tendency for inventory reductions last year to start business activity snowballing downward was offset by high consumer income and spending which did not decline appreciably.

PROBLEMS OF INVENTORY MANAGEMENT

Inventories are a serious problem for individual firms as well as for the economy as a whole, and poor inventory management is an important cause of business failure. One-third of the gross working capital of all corporations consists of inventories. They amount to 25 per cent of total assets of manufacturers, and nearly 40 per cent of total assets of trade firms. At the end of 1949, total business inventories were valued at 53.8 billion. Of this amount manufacturers held 57 per cent, wholesalers 17 per cent, and retailers 26 per cent.

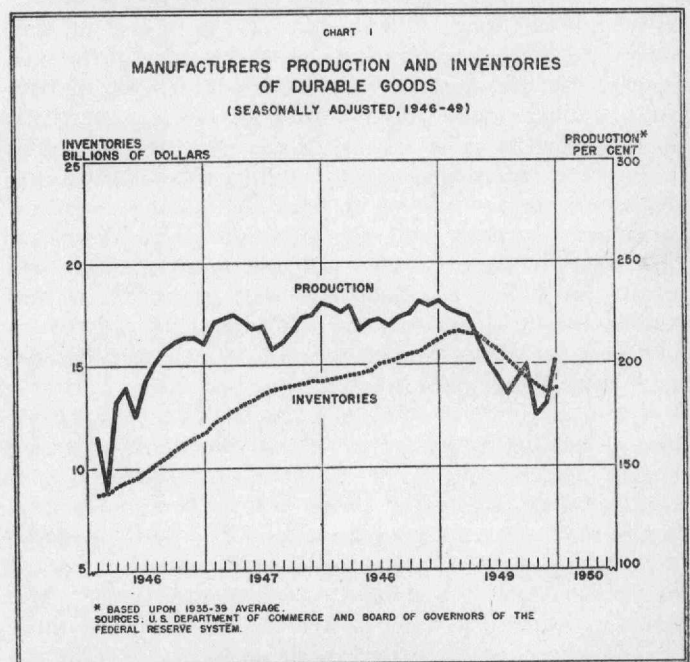
The inventories of manufacturers, the largest group, are also, unfortunately, the most volatile. Durable goods industries, of special importance to the Seventh District, account for almost half of the total for all manufacturing. Illinois, Michigan, Indiana, and Wisconsin, while representing only 17 per cent of the nation's population, produce over one-third of all machinery, electrical equipment, metal products, and transportation equipment. These industries accounted for two billion of the total decline in all manufacturing inventories of 3.3 billion dollars last year.

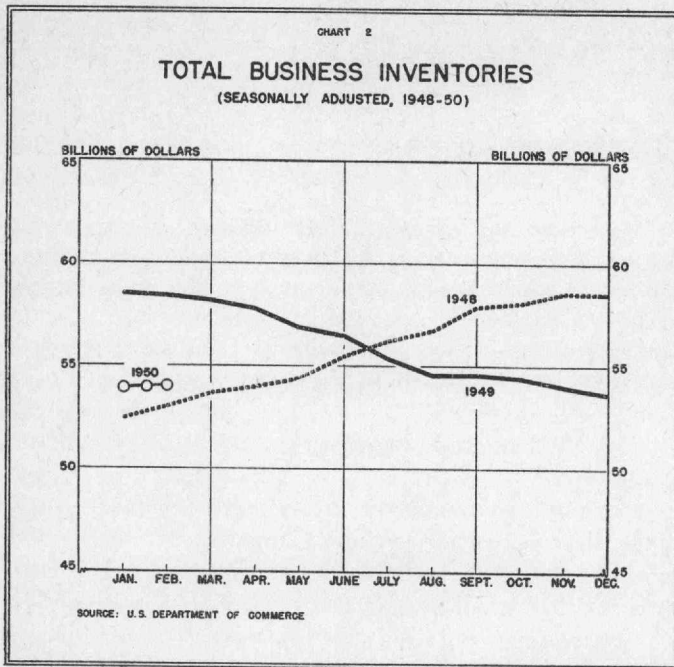
Businessmen's inventory decisions are largely influenced by anticipated sales, but there are a number of other factors which must be considered. What are the prospects for price changes? It is always desirable to have inventories at high levels when prices are due to rise and at a minimum when deflationary tendencies are strong. Is supply expected to be tight in the future? Retailers' stocks rose rapidly in 1942 in view of prospective wartime shortages. A similar situation existed last October, when steel users increased their orders because the strike appeared imminent.

Over the past decades businessmen have learned a good deal about inventory management. Trade firms have managed to conduct their activities with a constantly decreasing ratio of stocks to sales. In 1940, retail sales were at about the 1929 level, but inventories were only 80 per cent as large. In 1939, sales for all business were 6.6 times inventories. During recent years this ratio has been about eight to one. This steady trend toward faster inventory turnover is the result of a number of factors: (1) better control through perpetual inventory methods and other improved techniques, (2) faster and more reliable service from suppliers, (3) better sales forecasting, (4) greater caution on the part of management, and (5) insufficient working capital in the hands of trade firms.

The trend toward smaller inventories per unit of sales is highly desirable. There is nothing to be gained by keeping inventories themselves at a high level. It is the fluctuations that must be avoided if inventory levels are not to affect the business cycle, and changes are less troublesome if they are kept low in relation to sales. However, if a merchant's stocks are inadequate in quantity or variety, sales may be lost. Retailers in Midwestern cities and in the nation tended to underestimate demand all during 1949. In December of last year it was necessary to place rush orders for all sorts of commodities to satisfy higher demand than had been anticipated.

Manufacturers' inventories are less subject to man-





agerial control than are those of trade firms. Instead of merely buying and selling goods, the manufacturer adds value to raw materials and produces something different. His stocks are divided into three portions: raw materials, goods in process, and finished goods. When materials are once placed in the productive process, manufacturers' inventories are apt to continue to grow even though sales fall off. The situation is simplified if production is to order rather than for stock, but even here cancellations and merchandise returns may result.

FINANCIAL EFFECTS

All lines of business experience serious financial problems when inventories are rising. From 1946 through 1948, funds required by corporations to carry larger inventories at steadily rising prices amounted to 26.4 billion dollars, or 60 per cent as much as capital outlays during the same period. The decline in corporate security issues from 1948 to 1949 is largely accounted for by the fact that most firms no longer needed large sums for working capital to carry inventory increases. The commercial and industrial loans of the weekly reporting banks are strongly influenced by inventory trends. From 1946 through 1948, this loan category rose by 9.3 billion, or 100 per cent, while total business inventories gained 28.1 billion, or 92 per cent. In 1949, these loans dropped 2.5 billion, or 13 per cent, while inventories dropped eight per cent. Many corporations which do not ordinarily depend upon commercial banks used bank loans in 1946 and 1947 to satisfy their greatly increased need for working capital.

Aside from creating problems in financing inventories, rising prices cause profit figures to be inflated as a result of inventory gains. Profits from this process are partly fictitious, since the gains cannot be converted into cash unless the inventory is liquidated.

The last-in-first-out method of inventory valuation,

under which the cost of sales is charged with the latest purchase, eliminates extremes of recorded profits and losses caused by inventory price changes. While LIFO tends to smooth out fluctuations in business profits as shown on financial statements, it really covers one fiction with another. The basic problems of inventory management are still present, and the ability of a firm to weather sharp price declines is largely unchanged. From one standpoint, LIFO may be said to have harmful effects, since it tends to reduce taxes when inflationary pressures are uppermost and increases them in periods of business decline. The practice may actually encourage speculative inventory management, since part of the tax penalty is removed.

LESS INVENTORY TROUBLE IN THE FUTURE?

What can be done to mitigate the effects upon the cycle of extreme fluctuations in business inventories? Violent over-all price changes are somewhat less likely than in the past because of agricultural price supports and high rigid industrial cost patterns. New processes to synthesize certain commodities such as alcohol, rubber, and detergents have added considerable stability to the prices of related goods.

Industries such as meat packing or those dealing with fats, oils, and other agricultural products will continue to be vulnerable although certain commodities can of course be hedged.

Sellers could probably contribute to a smoothing of sales and production totals by offering to reimburse customers if prices decline by a certain date. A fair proportion of inventories are financed by bank credit, and bank lending officers can help prevent extreme movements either up or down by wise lending policies and sound advice to customers.

Part of the inventory problem is a result of inadequate information on which to base decisions. Business managers should be able to compare the situation in their own firm with all the firms in their industry and other related industries. For example, when finished goods inventories start to back up in the hands of manufacturers, there is a signal to go easy on new accumulations. If this tendency can be observed soon enough, some of the excesses of inventory accumulation can be avoided. When stocks to sales ratios indicate an undersupply of goods, it is likely that additional goods can be acquired without undue risk.

Newly revised statistical material useful for inventory analysis was recently made available by the Department of Commerce. Total sales and inventories of manufacturing, retail, and wholesale establishments broken down by type of enterprise on a seasonally adjusted basis are currently being published each month in the *Survey of Current Business*. Department of Commerce statisticians had determined that the older series understated business inventories in the postwar period. Supplementing the inventory and sales data is the series on manufacturers' new orders which the Department of Commerce offered in December.

Retail Credit Survey—1949

Credit Buying Sustains Retail Sales

A marked shift in consumer buying from nondurable to durable goods coupled with an increase in the relative importance of sales credit during 1949 were the most noteworthy findings of the annual survey of more than 1800 credit-granting retail establishments in the Seventh Federal Reserve District. Each of the nine lines of trade covered by the survey experienced an expansion in credit sales relative to cash sales. This trend was especially pronounced at the retail outlets for furniture and household appliances, with credit sales accounting for approximately three-fourths of total volume during the year.

The strength of instalment sales during 1949 moderated a decline in total net sales for most of the lines of trade. At least part of the upsurge in demand for durable goods may be attributed to an increased emphasis on instalment selling through widespread advertising of eased credit terms. While these long-term transactions were important in sales of furniture and automobiles, they were most significant at household appliance stores, with an increase of one-fifth in dollar volume and the largest expansion in relation to total sales.

Automobile dealers reported a total net sales increase of 16 per cent during 1949. This was the only kind of business included in the survey which experienced a higher level of sales than in 1948. Declines in sales of the other retailers ranged from 12 per cent for jewelry stores to two per cent at household appliance stores. To some extent these sales declines reflected moderate reductions in prices.

Both cash and charge account sales receded from the preceding year's levels in all lines of trade with the exception of cash transactions for automobiles. The largest decline in cash sales occurred at furniture stores, while the greatest reduction in charge account sales was experienced by the household appliance store group.

RECEIVABLES SUBSTANTIALLY HIGHER

Increased year-end receivables were reported by all types of stores except women's apparel. Moreover, the ratio of receivables to total sales for the year was higher than for 1948 in all lines of trade. This drop in liquidity of outstandings reflected the increasing relaxation in credit terms which characterized retail sales during 1949. Jewelry stores reported over one-half of their instalment accounts uncollected at the end of the year, while department and furniture stores also were in relatively less favorable positions than at the end of 1948. Furthermore, outstanding balances on a generally lower charge account sales volume were repaid somewhat more slowly than in any year since the war.

STOCKS REDUCED IN VOLUME

Inventories at the end of last year were generally lower in dollar volume than at the same time in 1948.

**SALES, RECEIVABLES, AND INVENTORIES OF CREDIT-GRANTING RETAIL BUSINESSES
SEVENTH FEDERAL RESERVE DISTRICT, 1948-1949**

| Transaction | Percentage of Total Sales | | Percentage of Total Sales | | Percentage of Total Sales | | Percentage of Total Sales | | Percentage of Total Sales | | Percentage of Total Sales | | | | |
|---|---------------------------|-------|---------------------------|-------|---------------------------|-------|---------------------------|-------|---------------------------|-------|---------------------------|-------|-------|-------|-------|
| | Change from 1948 | 1949 | 1948 | 1949 | 1948 | 1949 | 1948 | 1949 | 1948 | 1949 | 1948 | 1949 | | | |
| Automobile Dealers | | | | | | | | | | | | | | | |
| Sales during year: | | | | | | | | | | | | | | | |
| Cash..... | +15.8 | 66.9 | 67.3 | -7.9 | 41.6 | 42.3 | -8.1 | 56.7 | 58.3 | -18.3 | 23.1 | 26.6 | -11.7 | 55.3 | 57.5 |
| Charge account..... | -2.4 | 13.3 | 15.8 | -7.3 | 51.0 | 51.4 | -3.4 | 34.2 | 33.3 | -9.6 | 16.5 | 17.1 | -5.2 | 39.2 | 38.0 |
| Instalment..... | +37.4 | 19.8 | 16.9 | +9.4 | 7.4 | 6.3 | +2.1 | 9.1 | 8.4 | +0.9 | 60.4 | 56.3 | +11.8 | 5.5 | 4.5 |
| Total..... | +16.5 | 100.0 | 100.0 | -6.5 | 100.0 | 100.0 | -5.8 | 100.0 | 100.0 | -6.2 | 100.0 | 100.0 | -8.1 | 100.0 | 100.0 |
| Accounts receivable at end of year: | | | | | | | | | | | | | | | |
| Charge account ¹ | +1.8 | 9.7 | 9.3 | +7.4 | 13.4 | 11.7 | +0.9 | 21.8 | 20.9 | +5.5 | 26.4 | 22.6 | -0.3 | 13.6 | 12.9 |
| Instalment ¹ | +117.3 | 5.4 | 3.4 | +49.1 | 22.8 | 17.7 | +28.5 | 47.6 | 39.2 | +28.6 | 45.8 | 36.0 | +48.2 | 22.3 | 16.8 |
| Total..... | +33.8 | 2.4 | 2.1 | +12.9 | 8.6 | 7.1 | +8.6 | 11.6 | 10.0 | +24.9 | 32.1 | 24.2 | +6.2 | 6.6 | 5.7 |
| Inventories, retail at end of year ¹ | -1.3 | 13.0 | 10.8 | -10.0 | 3.9 | 3.8 | -8.7 | 5.0 | 4.8 | -9.3 | 3.2 | 3.1 | -3.1 | 3.6 | 3.8 |
| Household Appliance Stores | | | | | | | | | | | | | | | |
| Sales during year: | | | | | | | | | | | | | | | |
| Cash..... | -15.9 | 25.8 | 30.0 | -14.5 | 44.3 | 45.9 | -14.2 | 58.2 | 61.7 | -11.4 | 56.3 | 56.9 | | | |
| Charge account..... | -17.2 | 26.6 | 31.5 | -12.3 | 24.0 | 24.2 | -2.5 | 32.6 | 30.4 | -8.5 | 37.0 | 36.2 | | | |
| Instalment..... | +21.0 | 47.6 | 38.5 | -6.5 | 31.7 | 29.9 | +5.0 | 9.2 | 7.9 | -12.0 | 6.7 | 6.9 | | | |
| Total..... | -2.1 | 100.0 | 100.0 | -11.6 | 100.0 | 100.0 | -9.8 | 100.0 | 100.0 | -10.4 | 100.0 | 100.0 | | | |
| Accounts receivable at end of year: | | | | | | | | | | | | | | | |
| Charge account ¹ | +15.8 | 15.4 | 11.0 | +4.5 | 27.4 | 23.0 | 0.0 | 20.4 | 19.9 | -2.7 | 21.3 | 20.0 | | | |
| Instalment ¹ | +33.3 | 33.7 | 30.6 | +4.1 | 57.4 | 51.4 | +4.2 | 30.8 | 31.0 | -0.2 | 20.4 | 19.0 | | | |
| Total..... | +29.4 | 20.2 | 15.3 | +4.2 | 24.9 | 21.1 | +1.2 | 9.5 | 8.5 | -2.4 | 9.7 | 8.9 | | | |
| Inventories, retail at end of year ¹ | -14.2 | 4.0 | 3.6 | -4.8 | 1.9 | 2.1 | +1.7 | 3.7 | 4.2 | -8.0 | 5.4 | 5.4 | | | |
| Jewelry Stores | | | | | | | | | | | | | | | |
| Sales during year: | | | | | | | | | | | | | | | |
| Cash..... | -14.5 | 44.3 | 45.9 | -14.2 | 58.2 | 61.7 | -11.4 | 56.3 | 56.9 | | | | | | |
| Charge account..... | -12.3 | 24.0 | 24.2 | -2.5 | 32.6 | 30.4 | -8.5 | 37.0 | 36.2 | | | | | | |
| Instalment..... | -6.5 | 31.7 | 29.9 | +5.0 | 9.2 | 7.9 | -12.0 | 6.7 | 6.9 | | | | | | |
| Total..... | -11.6 | 100.0 | 100.0 | -9.8 | 100.0 | 100.0 | -10.4 | 100.0 | 100.0 | | | | | | |
| Accounts receivable at end of year: | | | | | | | | | | | | | | | |
| Charge account ¹ | +4.5 | 27.4 | 23.0 | 0.0 | 20.4 | 19.9 | -2.7 | 21.3 | 20.0 | | | | | | |
| Instalment ¹ | +4.1 | 57.4 | 51.4 | +4.2 | 30.8 | 31.0 | -0.2 | 20.4 | 19.0 | | | | | | |
| Total..... | +4.2 | 24.9 | 21.1 | +1.2 | 9.5 | 8.5 | -2.4 | 9.7 | 8.9 | | | | | | |
| Inventories, retail at end of year ¹ | -4.8 | 1.9 | 2.1 | +1.7 | 3.7 | 4.2 | -8.0 | 5.4 | 5.4 | | | | | | |
| Men's Clothing Stores | | | | | | | | | | | | | | | |
| Sales during year: | | | | | | | | | | | | | | | |
| Cash..... | -14.2 | 58.2 | 61.7 | -11.4 | 56.3 | 56.9 | | | | | | | | | |
| Charge account..... | -2.5 | 32.6 | 30.4 | -8.5 | 37.0 | 36.2 | | | | | | | | | |
| Instalment..... | +5.0 | 9.2 | 7.9 | -12.0 | 6.7 | 6.9 | | | | | | | | | |
| Total..... | -9.8 | 100.0 | 100.0 | -10.4 | 100.0 | 100.0 | | | | | | | | | |
| Accounts receivable at end of year: | | | | | | | | | | | | | | | |
| Charge account ¹ | 0.0 | 20.4 | 19.9 | -2.7 | 21.3 | 20.0 | | | | | | | | | |
| Instalment ¹ | +4.2 | 30.8 | 31.0 | -0.2 | 20.4 | 19.0 | | | | | | | | | |
| Total..... | +1.2 | 9.5 | 8.5 | -2.4 | 9.7 | 8.9 | | | | | | | | | |
| Inventories, retail at end of year ¹ | +1.7 | 3.7 | 4.2 | -8.0 | 5.4 | 5.4 | | | | | | | | | |
| Women's Apparel Stores | | | | | | | | | | | | | | | |
| Sales during year: | | | | | | | | | | | | | | | |
| Cash..... | -11.4 | 56.3 | 56.9 | | | | | | | | | | | | |
| Charge account..... | -8.5 | 37.0 | 36.2 | | | | | | | | | | | | |
| Instalment..... | -12.0 | 6.7 | 6.9 | | | | | | | | | | | | |
| Total..... | -10.4 | 100.0 | 100.0 | | | | | | | | | | | | |
| Accounts receivable at end of year: | | | | | | | | | | | | | | | |
| Charge account ¹ | -2.7 | 21.3 | 20.0 | | | | | | | | | | | | |
| Instalment ¹ | -0.2 | 20.4 | 19.0 | | | | | | | | | | | | |
| Total..... | -2.4 | 9.7 | 8.9 | | | | | | | | | | | | |
| Inventories, retail at end of year ¹ | -8.0 | 5.4 | 5.4 | | | | | | | | | | | | |

¹Exceptions in column "Percentage of Total Sales": charge account receivables, which are expressed as percentage of annual charge account sales;

instalment receivables, which are expressed as percentage of annual instalment sales; and inventories, which are shown as the ratio of sales to inventories.

Although men's clothing stores showed slightly heavier inventories, all the other kinds of businesses reduced stocks on hand from one per cent at automobile dealers to as much as 14 per cent at household appliance stores. In many cases the reduction in inventories more than kept pace with the decline in sales volume, and as a result over half of the lines of trade reported a more rapid rate of turnover than a year earlier. The rate of turnover, however, was lower for men's clothing, hardware, and jewelry stores.

REVIEW BY KIND OF BUSINESS

Automobile Dealers again experienced a substantial rise in total sales, although the increase was smaller than in the preceding postwar years. Stocks tended to increase somewhat as production reached a new peak, although the last quarter factory shutdowns due to steel shortages and model changeovers limited the output of new cars and forced inventories down. The expiration of Regulation W at midyear enabled dealers to offer more liberal credit terms, thereby leading to an appreciable expansion in instalment sales and outstandings.

Total sales of *Automobile Tire and Accessory Stores* dropped during 1949 from the high level of the preceding two years to approximately the 1946 volume. The bulk of the decline occurred in cash sales, but credit sales also were down somewhat from the 1948 high. Accounts receivable continued to increase, thereby indicating slower collections.

For the first time since the Retail Credit Survey of 1942, total sales of *Department Stores* failed to surpass the dollar volume of the previous year. This decline resulted from lower initial mark-ups, substantial mark-downs, and buying down by consumers. In order to meet the competition of specialty stores for durable goods sales, department stores engaged in intensive advertising of instalment terms.

Despite the continued high-level building of new homes with a correlated demand for furnishings, total sales in *Furniture Stores* for the year as a whole declined slightly. Apparently in anticipation of price declines during the earlier months of 1949, consumers delayed their purchases of housefurnishings. Merchants allowed stocks on hand to move accordingly lower, and thereby maintained a fairly constant inventory turnover.

Although *Hardware Stores* offer stable lines of "hard" goods to the consumer, business is transacted primarily on a cash and charge account basis. A decline in total sales was somewhat mitigated by the more active credit volume, although more than one-half of the total was in the cash segment. Uncollected credit account balances were somewhat higher in relation to sales.

In an attempt to stem the decline in total net sales from the 1947 high, *Household Appliance Stores* have been stressing instalment sales to an increasing extent. These sales accounted for 48 per cent of the total business in 1949, exceeding the 1941 peak. Reporting stores nearly doubled the amount of instalment paper which they sold last year. These stores showed the greatest drop

in inventories on a year-to-year comparison owing to a strong upsurge in consumer buying during the final months of 1949.

Despite promotional tie-ups with manufacturers, both cash and credit sales of *Jewelry Stores* continued the decline of the preceding year. To some extent uncertainty regarding the future status of the excise tax probably caused consumers to defer purchases of jewelry. A continued increase in receivables during the year reduced the ratio of sales to receivables to the lowest point in the last eight years.

Sales of *Men's Clothing Stores* fell to a level below that of 1946. These declines may be attributed in some degree to adjustments from the distorted and abnormally high demand of the immediate postwar years. Instalment sales and receivables increased nominally from the preceding year.

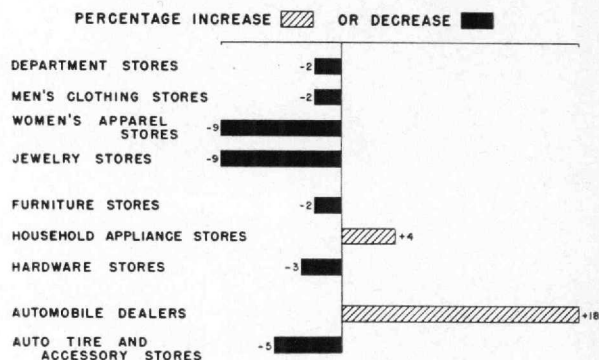
There were no radical style changes in *Women's Apparel* during 1949. Lacking this stimulus, sales dropped to the lowest level in the last four years. Inventory turnover ratios remained unchanged, however, since stocks declined sharply during the year partly as the result of lower prices.

RECENT TRENDS IN RETAIL TRADE

The upturn in retail sales evident in the last quarter of 1949 has continued into the first part of 1950. Durable goods sales have gathered momentum and are still eclipsing soft goods totals. Both furniture and appliance sales have been substantially above year-ago levels, the former probably representing an actual increase in unit totals. The traditional effectiveness of Easter as a spur to apparel sales has not produced an increase in sales volume for the spring of 1950. The latest figures for department stores reveal that women's clothing sales have been abating from last year's level. Men's wear sales, while showing a decline for January and February, however, turned upward in March.

Note: Copies of a more detailed analysis, including comparisons by city trading areas in the Seventh District, may be obtained on request to the Research Department, Federal Reserve Bank of Chicago, P. O. Box 834, Chicago 90, Illinois.

RETAIL CREDIT SALES, 1949 OVER 1948 SEVENTH FEDERAL RESERVE DISTRICT



SEVENTH FEDERAL



RESERVE DISTRICT

