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CONTENTS

The Price of Farm Land in Two P	ost	wa	r		
Periods				1	
The Scope and Availability of					
Department Store Trade Data				5	
National Business Summary .				8	

FINANCE . INDUSTRY . AGRICULTURE . TRADE

FOURTH FEDERAL RESERVE DISTRICT

Vol. 33-No. 8

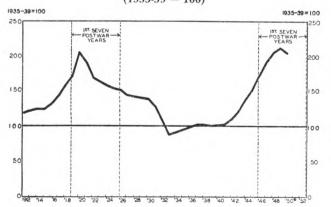
Federal Reserve Bank of Cleveland

Cleveland 1, Ohio

The Price of Farm Land in Two Postwar Periods

FLUCTUATIONS in the market value of farm real estate during the past five years bear little resemblance to the pattern followed after World War I. For example, by early 1924, farm land prices had fallen about 23 percent from the peak values reached in 1920, whereas in the present instance prices have receded only some three or four percent. An important stabilizing influence perhaps has been the continued strength in the markets for farm products. Prices of agricultural commodities in the aggregate have tended to fluctuate within a range of $2\frac{1}{4}$ to $2\frac{1}{2}$ times the prewar level throughout the past five years, in contrast to the sharp liquidation

U. S. FARM REAL ESTATE; VALUE¹ March 1, 1912-1950 (1935-39 = 100)



... the rise in farm land values that accompanied World War II started from a lower level but went higher and continued longer than the World War I rise. Moreover, the decline from the peak thus far has been less abrupt than in the earlier period.

of 1920-21, when such prices fell to a point only some 25 percent above prewar.

Charts accompanying this article depict the land market situation after the two wars by presenting graphically certain statistics compiled by the U.S. Department of Agriculture. Throughout this discussion the expressions "farm real estate" and "farm land" are used interchangeably in reference to farm land with improvements, including buildings.

Farm land values reached a peak within two years after the end of World War I and then dropped sharply. After the end of World War II, the upward movement lasted a year longer and went somewhat beyond the record established 29 years earlier.

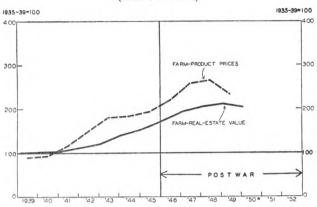
Changes in farm land values reflect changes in prices received by farmers for their products and anticipations as to future income levels. This relationship helps explain the difference in behavior of land values in the two postwar periods. In the present period the demand for farm products has remained high, resulting in a longer postwar rise in prices. Partly as a result of the acquisition of \$4 billion of agricultural products in pursuance of a statutory support program in the past two or three years, the drop in farm product prices from the postwar peak was less precipitous than after World War I. The 1950 recovery of agricultural prices, accelerated by the Korean outbreak, will tend to push farm land values toward the peak of a year or two ago; and if the international crisis is prolonged, farm land values may reach a new all-time high.

Returns from Use of Land Although the relationship between farm real estate values and farm product prices appears close, the actual increase in land values as a result of high

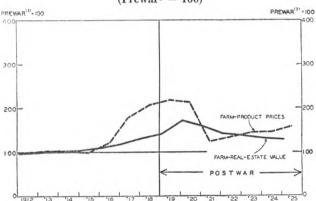
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U. S. FARM REAL ESTATE: VALUE¹ COMPARED WITH FARM PRODUCT PRICES²

Post World War II (1935-39 = 100)



Post World War I (Prewar³ = 100)



. . . in both postwar periods farm product prices turned downward about one year before farm land values reached a peak.

farm income has been considerably less in the recent war and postwar period than in the earlier one. The higher productivity of farms has raised farm income much more than would be indicated by farm product prices alone. Crop production per acre and production per animal unit are each about one-third greater than in the years immediately following World War I. Because of proportionately larger investment in machinery, equipment, and livestock, and because of higher costs of maintaining real estate, only a part of the increased productivity of farms is attributable to land.

Even that part of the net returns from farming which may be allocated to land, however, rose much more in the recent boom period than did real estate values. The annual return to land rose during the last war to 9½ percent of the total value of farm land, compared with a high point of 7½ percent during World War I. In the 1940's prospective buyers of farm land tended to be conservative in estimating how long the very favorable returns from

farm land would continue and, therefore, at what rate such returns should be capitalized.

This was in great contrast to the prevailing attitude during and just after World War I, when it was generally assumed that high farm incomes had come to stay. As it turned out, farm income started dropping in 1920 and dropped much faster than land values, soon bringing the percentage return well below the average mortgage interest rate, which incidentally, was considerably higher than in recent years. In contrast, the percentage return on farm land, estimated last year at 6.2 percent, was still substantially above the average interest rate on farm mortgages, although declining.

Mortgage Debt

The increased income during World War II was used by farmers for mortgage debt reduction rather than for ex-

pansion of acreage as during World War I. Prospective purchasers of entire farms were more cautious, apparently remembering the long period of foreclosures which reached a climax in the early 1930's. Lenders also were more conservative during World War II and did not make frequent use of second and third mortgages, which were common during World War I.

After World War I, farmers' equities in land decreased sharply as mortgage debt rose and farm land values fell. During that period many farmers in financial difficulties refinanced short-term debts by placing mortgages on their farms and this factor accounted for part of the rapid rise in mortgage

debt in the early 1920's.

Although the volume of farm mortgages outstanding has increased since the end of World War II, owners' equities in farm realty also continued to increase on the average up until last year because the total value of farm real estate was increasing faster than the total of farm mortgage debt. The reversal in the movement of farm land values during the past year was not accompanied by a reduction in mortgage debt, with the result that for the first time in many years, owners' equities shrank during 1949.

Farmers retired the principal of outstanding obligations less rapidly during 1949 than in several preceding years, but the dollar volume of new mortgage

FOOTNOTES FOR ALL CHARTS

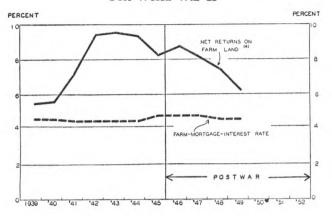
Source of data for all charts is U. S. Department of Agriculture.

- * Latest data shown are preliminary.
- Average value per acre of all farm lands with improvements as of March 1, except as indicated.
- ² Based on Prices Received by Farmers (1910-14 = 100).
- 3 1912-14 = 100 for Farm Real Estate Prices and 1910-14 = 100 for Farm Product Prices.
- 4 Net land returns (income attributable to real estate) expressed as percent of farm real estate value at end of year.
- ⁵ Years beginning March 16.

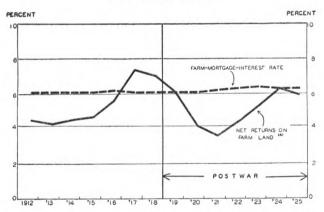
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U. S. FARM REAL ESTATE: RATIO OF NET RETURNS TO VALUE4, AND MORTGAGE INTEREST RATE

Post World War II



Post World War I



... from 1943 to 1948 (see top chart) the rate of return on farm land was roughly twice the mortgage-interest rate. This is in contrast to the World War I era (lower chart), when the rate of return was above the interest rate for only two years.

recordings dropped only 1 percent from 1948 to 1949. An increase in the number of sales requiring financing has apparently offset part of a recent decline in the number of farms sold.

Nevertheless, farm mortgage debt totals less than one-tenth of the value of all farm real estate. In 1924, six years after the close of World War I, mortgages equaled one-sixth of the value of farm real estate. Short-term farm debt is also considerably smaller than in the years just after World War I; and it is only about one-fifth as large as the value of livestock, machinery and motor vehicles on farms, compared with about two-fifths in 1924.

Farm With less hardship imposed on owners by boomtime overcapitalization of income, the farm land market as measured

by the number of voluntary sales remains stronger than in the corresponding period after World War I.

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As before, the number of sales began to drop after the first postwar year, but in contrast, the peak was higher and three years of decline have ended with sales still more numerous than at the beginning of the War.

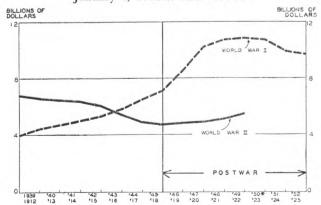
The number of voluntary sales might have risen higher during the war, but for certain restraining influences, one of which was the general caution previously mentioned. Wartime shortages of labor and farm equipment likewise caused some withholding of purchases, particularly for farm enlargements. Some sales were deferred by the owners' problem of what to do with the proceeds.

In contrast with the number of voluntary farm sales, forced sales are very small in number. In 1949 there were practically no farm transfers resulting from delinquent taxes, and sales due to mortgage foreclosures and assignments in bankruptcy averaged not more than 1.8 per 1000 farms. Largely because the number of forced sales is so low, the total number of farm transfers (including also inheritances, gifts, and administrators' and executors' sales) has fallen to the lowest level since complete records first became available in 1926. Early statistics are available, however, for foreclosures and assignments, and they show that by the mid-1920's these forced transfers had risen to five times the prewar rate and were eight times as numerous as at present.

Relatively numerous voluntary sales but few forced sales, along with relatively high land prices, indicate continued strength in the farm real estate market. Latest reports mention a slight increase in interest since last Fall in the purchase of farms, but the demand is more selective than previously. For the poorer farms demand has slackened, but for the better grades of land, particularly in the Corn Belt, it is still strong.

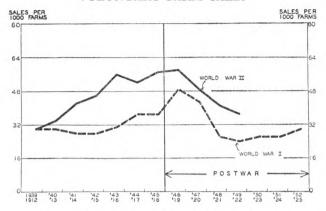
U. S. FARM REAL ESTATE: MORTGAGE DEBT OUTSTANDING

January 1, 1912-26 and 1939-50



. . . in sharp contrast to the situation after World War I, farm mortgage debt has risen very moderately in the current period.

U. S. FARM REAL ESTATE: VOLUNTARY FARM SALES⁵

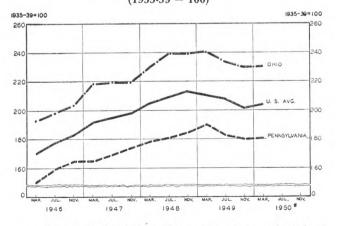


... since World War II, voluntary farm sales have been relatively more numerous than in the period immediately following World War I.

Fourth Although the pattern of land-value movements in the four Fourth District states combined has been similar to the national average, individual states show wide deviations from the over-all trend.

In Kentucky, for example, farm land values rose farther above the prewar level than in any other of the 48 states. Last March, values in that state were 182 percent above the prewar level, compared with 104 percent for the nation as a whole and 131 percent for Ohio. During the war, tobacco growers were favored with exceptionally good returns and subsequent income shrinkage has been less for tobacco farming than for most other kinds of farming. Acreage allotments and marketing quotas have re-

U. S. FARM REAL ESTATE: VALUE¹ March 1, July 1, November 1, 1946-50 U. S., Ohio and Pennsylvania (1935-39 = 100)



. . . since last November, farm real estate values have risen somewhat in Ohio and Pennsylvania, as well as in the country as a whole, but are still measurably below the peaks reached in the winter of 1948-49.

duced the risk of a sharp drop in income and are therefore partially responsible for the maintenance of high land values in Kentucky.

Dairy farmers, on the other hand, have experienced a smaller than average increase in income since the prewar years, and, in consequence, farms in dairy areas have increased in value less than the average for the country. This difference accounts partially for a relatively small increase in farm land values in Pennsylvania.

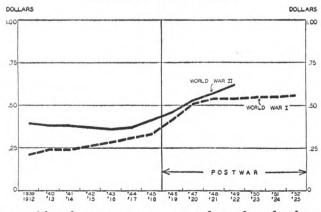
West Virginia, although not predominantly a dairying state, has had about the same percentage increase from the prewar level of farm land values as has Pennsylvania. Swings in values have been a little wider in West Virginia than in Pennsylvania, however, and by last March the index had dropped to 169 compared with Pennsylvania's 181.

Outlook Taxes per acre on farm land—though only moderately higher than in the post-World-War-I years of relatively small returns from the use of land—are the highest on record and apparently are still rising. Higher operating costs of state and local governments and the need for expanded public facilities—particularly schools and roads—are resulting in widespread demands for more revenue.

This and other aspects of the farm real estate situation appear to justify continued caution on the part of owners, buyers, and lenders. Farm income is lower than in recent years, and farm proprietors' equities are reduced on the average by slowly growing mortgage debt and lower land values—in spite of a small rise last winter.

The future trend in farm land prices will depend mainly on developments in the general economy of the nation and these in turn will depend largely upon international political and military developments.

U. S. FARM REAL ESTATE: TAX LEVIES PER ACRE



. . . although taxes per acre are only moderately above the level of the post-World War I period, there is no indication yet of a leveling-off such as occurred in the earlier period.

The Scope and Availability of Department Store Trade Data

THE collection of department store trade data was inaugurated on a national scale by the Federal Reserve System shortly after the close of World War I. The evolution and administration of appropriate monetary and credit policies, under rapidly changing conditions, made it highly desirable that the System be as well informed as possible regarding the major elements in the economy.

At that time the compilation of business statistics was quite in its infancy and the almost complete lack of quantitative up-to-date information on retail trade, industrial production, and innumerable other series now considered indispensable, was an obvious handicap to the System. While it was recognized that department store trade actually represents only a small percentage of total retail trade, a start had to be made somewhere, and the department store

field appeared to be the most practical.

This initial venture into an unexplored statistical field was extremely limited in scope when compared with present-day standards and requirements. Arrangements for reporting were made with a nucleus of cooperative stores only upon assurance that the confidential nature of individual store figures would not be violated. Data on dollar sales and end-ofmonth inventories were gathered at monthly intervals, and were subsequently published in the form of percentage changes from the corresponding month of the preceding year. It soon became evident, however, that year-to-year changes in sales were not as important from the interpretative standpoint as month-to-month changes. Consequently, the percentage change technique was supplanted by dollar sales figures and shortly afterward these in turn were superseded by the index numbers method. A series of adjustment factors were developed which, when applied to the indexes, helped to remove the monthto-month seasonal fluctuations.

Status With the passage of years, the program has gradually broadened, not only because of the System's requirements, but also in response to the increasing interest manifested by reporting stores and by the general public, regarding the current state of trade. At intervals the various samples were expanded and steps were taken to obtain information on changes in outstanding orders and trends in collection of receivables.

At the present time all of the information supplied by reporting stores comes in on a voluntary basis. While it is true that some aspects of this statistical operation are carried out primarily for the benefit of the Federal Reserve System, the program in its entirety is of such vital importance to the reporting firms and to the public at large that questions of Digitized for FRASER authority and jurisdiction seldom arise. If anything, the cooperating stores frequently express a desire for more detailed information rather than for less reporting responsibility.

Monthly ProcedureThe wheels of data preparation are put into motion each month when three separate forms are sent out to the de-

partment stores in this District.

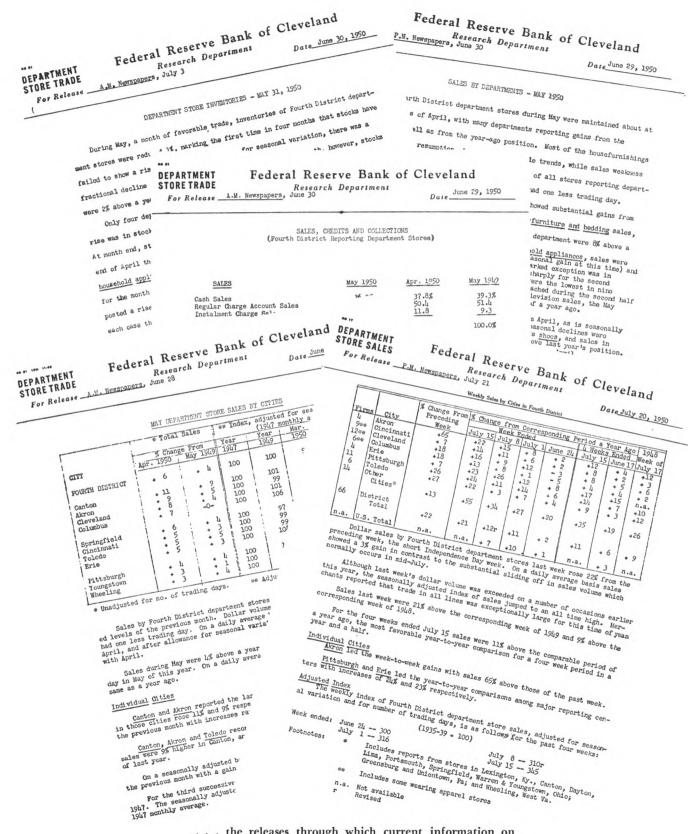
The first of the forms requests monthly dollar sales broken down into cash, charge account and instalment sales for the current month and the corresponding month of a year ago. The second form requests dollar sales and stocks for more than one hundred departments for the current month and year-ago month. The third request includes blanks for outstanding orders, total stocks, accounts receivable and collections.

These forms are sent to the stores at the end of each month and are filled out and returned to the research department by the fifteenth of the following month. The incoming reports are checked for discrepancies and are then machine tabulated, and it is from the printed sheets supplied by that operation that the tabular material presented in many of the trade section releases is obtained.

In addition to the monthly forms described above, a somewhat smaller sample of stores report each week, on a simple little form, total dollar sales for the most recent week and for the comparable week of a year ago. Space is also provided on the form for comments regarding special sales, extreme weather, transit disruptions and other unusual factors that might have influenced trade in a single city. These reports are received by the research department by the Wednesday following the week to which the sales figures pertain.

Since the immediate objective of this somewhat elaborate statistical operation is that of providing the Board of Governors with accurate and timely information on retail trade, the end results of each individual phase are mailed or wired to the Board immediately upon completion. It has become the established policy of this bank, however, to make the same information available to the public as promptly as possible through the medium of newspaper releases. These releases are not limited in circulation exclusively to news purveyors, but are obtainable by anyone making a written request to be placed upon one or more of the several mailing lists. At the present time there is no charge for this accommodation, on the grounds that the dissemination of useful facts and figures on current business trends is a legitimate function of a public service institution.

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. . . the releases through which current information on department store trade is made available to the general public.

whole.

Distribution The final tabulations of departof End Results ment store trade fall into two groups, one of which consists of

the releases prepared for the public, and the other represents a more specialized type prepared exclusively for the reporting stores. The public releases consist of Monthly Sales by Cities, Sales by Departments, Inventories by Departments, Weekly Sales by

Cities, and Sales, Credits and Collections.

"Monthly Sales by Cities" is a single page release which includes a table of index numbers for the three most recent months and for the past calendar year (based on the year 1947) for eleven Fourth District Cities. It also contains percentage changes in dollar sales from the preceding month and from the year-ago month. The bottom half of the page is devoted to textual material and usually includes some interpretation of current developments as well as a description of the data in the table.

"Sales by Departments" and "Inventories by Departments" are both two-page monthly releases. The back page of each consists of a table of percentage changes from a year ago for some sixty key departments.* These tables are made up directly from machine tabulation sheets. The first page of both releases describes and analyzes changes among the various types of merchandise. This information is made available to the public for the District as a

"Sales, Credits and Collections" is a single page monthly release which devotes itself exclusively to the credit phase of department store activities for the Fourth District. In the table on the top half of the page, cash sales, charge account sales, and instalment sales are presented as proportions of total store sales for the current month, the past month, and for the comparable month of a year ago. Collections on regular charge accounts and on instalment accounts are presented as percentages of charge receivables and instalment receivables respectively, for the same time periods. The bottom half of the page contains textual material relating to movements in the foregoing credit activities of Fourth District Department Stores.

The most popular release issued by the trade section from the standpoint of number of copies requested is the single-page weekly release "Sales by Cities." The release follows the familiar format of top-half table and bottom-half text. The table contains percentage changes (for seven cities as well as the entire District) from the preceding week, changes from a year ago for each of the four most recent weeks, changes from a year ago for the two most recent four-week periods, and changes from the corresponding week of two years ago. The text has an up-to-the-minute summary of developments in department store trade and is supplemented by a unique index which has been adjusted for weekly seasonal variations.

The cooperating stores receive a group of similarly entitled reports on Monthly Sales by Departments, Monthly Stocks by Departments, Department Store Operations and individual store index numbers. However, the reports to the stores on Sales by Departments and Stocks by Departments, although similar to their counterparts among the public releases, are subdivided on a city-wide basis for seven separate cities. Moreover, quarterly and annual summaries of Sales by Departments are sent to the stores as well as the regular monthly editions. No text accompanies the special store releases.

Department Store Operations is the title of a monthly report which includes year-to-year percentage changes in sales, stocks and outstanding orders for eleven cities, and changes in credit sales, accounts receivable and collections for seven cities. Each store also receives its individual store index as soon as the total sales forms for all stores in that city

have been submitted.

Beside the regular releases to the public and reports to the stores, the research department also makes available upon request some useful supplementary information. A booklet entitled "A Handbook of Department Store Statistics" contains many back figures for sales indexes, both unadjusted and adjusted for seasonal variation for the Fourth District and eleven individual cities, plus adjusted and unadjusted indexes of stocks for the District. It also includes annual indexes dating back to 1939 for fifty departments and contains what is known as the "horizontal spread" for the District and for seven cities. The "horizontal spread" is simply each month's sales in an individual department expressed as a percentage of total annual sales in that department. The total "horizontal spread" covers slightly more than fifty departments.

The "horizontal spread" is also available in mimeographed form for the various cities as is the "vertical spread". The "vertical spread" is made up of the annual sales of each department expressed as a per-

centage of total store annual sales.

Monthly seasonally adjusted indexes of such departments as women's and misses' ready-to-wear apparel, men's and boys' wear, furniture, floor coverings and appliances have been used as background material for articles appearing in the Monthly Business Review and are also available to the public.

^{*} Tables of year-to-year changes for a group of approximately one hundred departments are also available upon request.

SUMMARY OF NATIONAL BUSINESS CONDITIONS

By the Board of Governors of the Federal Reserve System

(Released for publication July 25, 1950)

Industrial production and construction activity increased further in June to new peacetime peaks. Following the outbreak of hostilities in Korea near the end of the month, buying showed a marked upsurge and commodity prices generally rose considerably in both wholesale and retail markets. Common stock prices declined sharply for a time. Prices of U. S. Government securities generally showed little change. Bank credit continued to expand. On July 19 a large-scale Federal program was proposed for expanding defense production and curbing inflationary developments.

Industrial Production

The Board's production index rose another 4 points in June to 199. Although output of steel and some other basic materials had been at or close to capacity levels in May, continued strong demands resulted in further increases in production of most major groups of manufacturers and minerals in June. In early July output declined temporarily owing to holiday and vacation influences.

Production of durable goods increased substantially further in June, mainly because of gains in the automobile and machinery industries. Automobile assembly, which had been at a new record rate in May, increased 23 per cent further in June, and activity in machinery industries continued the marked rise which began in early spring. Steel production was maintained in June at the capacity level reached in April. Refinery output of nonferrous metals expanded considerably further, but supplies available, after increased takings for Government stockpiles, continued substantially below industry demands. Mine production of copper and iron ore also expanded.

Output of nondurable goods increased somewhat further in June, reflecting mainly continued gains in rayon and woolen textiles, paper, petroleum, rubber and chemical products. Tire production was at a new record, and a substantial expansion in output of synthetic rubber was initiated. Activity

at cotton mills declined somewhat.

Construction

Value of construction contracts awarded in June was maintained at the spring peak level reflecting continued expansion in awards for public work which offset further small declines in private awards. The number of housing units started in June was maintained at the record May level and for the first half of the year totaled 687,000 units, as compared with 449,000 units started during the first half of 1949.

Employment

Employment in non agricultural establishments rose by about 300 thousand persons in June, after allowance for seasonal changes. About one-half of this increase occurred in industries producing durable manufactures; there were also gains in employment in construction and transportation activities.

Agriculture

Total crop production this year, according to July 1 estimates, is expected to be 6 per cent less than last year when stocks increased and exports were somewhat larger. Considerably smaller cotton and Digitized for FRANSTER crops are in prospect, but feed crops may approach last year's large harvest. Marketings of meat animals recently have been in about the same seasonally low volume as a year ago, while production of milk and eggs has been larger,

Distribution

Consumer buying increased considerably beginning in the latter part of June, influenced largely by international developments. Sales at department stores in mid-July were 24 per cent larger than in the corresponding period a year ago; sales in the preceding 2 weeks were 9 per cent larger. New automobile sales increased further and the volume was limited only by the supply available. Anticipatory buying was also evident for various other durable and semidurable goods and such foodstuffs as coffee and sugar. Distributors' stocks of most consumer goods, except passenger cars, had previously been rising following the recovery in production last summer.

Commodity Prices

Wholesale prices have generally risen considerably during the past 4 weeks, following earlier marked advances in April and May. The sharpest increases have been in prices of farm and food products, particularly livestock, meats, imported foodstuffs, and cotton. Cotton prices on July 21 were about one-fourth above the Federal loan level.

Prices of most industrial materials have advanced further in recent weeks, with especially marked increases in building materials, textiles, rubber, and tin. Prices of most metals have been maintained at earlier advanced levels.

Prices of some additional finished industrial products have been advanced during this period, and with retail food prices increasing sharply, a substantial further rise is indicated in the level of consumers' prices.

Bank Credit

Loans to real estate owners and consumers and holdings of corporate and municipal securities showed further substantial increases at banks in leading cities during June and the first half of July. Loans to businesses also expanded. Holdings of U. S. Government securities fluctuated considerably but declined somewhat over the period.

Treasury deposits at the Reserve Banks which had been built up through tax payments in the latter part of June were drawn down during the first three reporting weeks of July, supplying reserve funds to member banks. These funds were absorbed by reduction in Federal Reserve holdings of U. S. Government securities. The System continued to sell Treasury bonds and also sold bills and certificates, and these sales were offset in part by purchases of notes.

Security Markets

Common stock prices fell 13 per cent from the latter part of June to the middle of July, reflecting developments in Korea, but recovered part of the decline during the third week. Demand for U. S. Government securities broadened throughout this period. With virtually no change in prices of longterm Treasury bonds, a moderate decline in the prices of high-grade corporate obligations resulted in some widening of the narrow spread between yields of these securities.

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