

MONTHLY



Review

**FEDERAL RESERVE BANK
OF ST. LOUIS • P. O. BOX 442 • ST. LOUIS 66, MO.**

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Stability in Economic Activity Continues

THROUGH JUNE AND INTO EARLY JULY economic activity in the United States remained virtually stable. Inventory reductions in durable goods industries and a continuing gradual decline in construction activity were not entirely offset by expansion in production of some consumer goods and by growth in government purchases of goods and services. Industrial production in June, at 109 per cent of the 1957 average, was at the level reached last December, and about the same as in June of 1959. In Western Europe, by contrast, economic activity in recent months has been expanding so rapidly that the United Kingdom and Germany have taken steps to moderate the pace of the advance. Prosperity abroad has contributed to some improvement in the United States balance of trade. Exports from this country in April and May rose about 4 per cent from the first quarter average rate, after seasonal adjustment, and were at the highest level since mid-1957.

Industrial Production

Perhaps the most remarkable aspect of industrial production in recent months has been the sharp contraction in steel output as steel users attempted to reduce inventories. By the third week in July steel production was down to a rate of about 55 per cent of

more sharply than has activity of some of the major steel-users, such as the manufacturers of fabricated metal products, machinery, and related products. Production of processed foods, apparel, automobiles, fuel, and power for consumer markets rose in June. Output of furniture and appliances declined, however.

Inventories

Despite the efforts of some industries to curtail inventories, total stocks of manufacturers were still rising in May, the latest month for which data are available. Inventories of wholesalers and retailers also rose in May, bringing the seasonally adjusted book value of total business inventories to \$93.2 billion, up about 10 per cent from the 1958 recession low. In the corresponding period of the recovery from the 1954 recession inventories rose nearly 15 per cent. In that period, however, prices were rising so that the increase in physical volume of stocks was considerably smaller than the increase in dollar value.

Construction

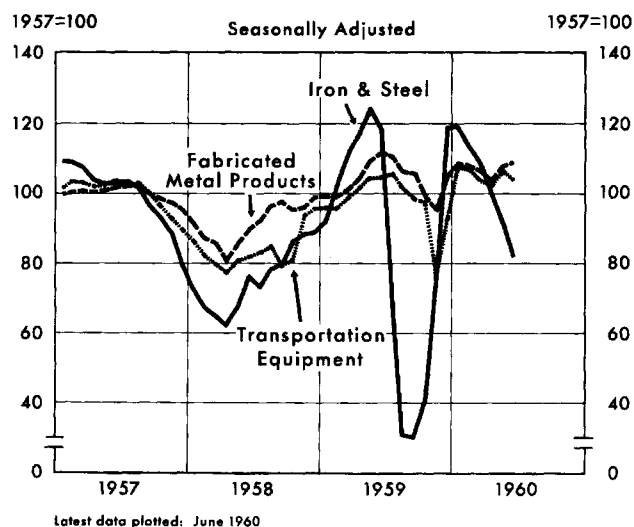
Expenditures for new construction in June were down slightly to a seasonally adjusted annual rate of \$53.4 billion. The 1959 peak in construction expenditures was a \$56.6 billion annual rate reached in May. Reductions in private residential building and public construction have more than offset gains in industrial and other construction since then.

Employment

Although recent rates of activity in manufacturing, construction, and agriculture are reasonably high when compared with 1958 rates they have not absorbed all of the growth of the labor force. Unemployment has not been appreciably below a seasonally adjusted rate of 5 per cent of the civilian labor force since October 1957. Rapid growth in output per manhour since the last recession accounts in part for the slowness in growth of total employment.

With the ending of school in June a flood of young people entered the labor force. The record 2.2 million increase in number of potential workers 14 to 19 years of age represents the first wave of children born after the upturn of birthrates in the early 1940's, and will be followed by additional large increases in numbers of young people available for work through the 1960's. Although the majority of the new entrants to the labor force found jobs, unemployment rose by

Production of Iron and Steel Compared
With Activities of Major Steel-Using Industries



estimated capacity from a rate of more than 90 per cent at the turn of the year. It is evident from the chart that output of iron and steel has fallen much

almost one million over the month to 4.4 million, for a seasonally adjusted rate of 5.5 per cent of the labor force. About 800,000 of the increase in unemployment was among teenagers and another 100,000 among 20-24 year olds. Part of this increase was just "statistical" in that the June survey, upon which the estimates were based, was made later in the month (June 12-18) than is sometimes the case. By the time of the survey most students were already out of school and available for work. The number of long-term unemployed (15 weeks or longer) declined from 900,000 to 800,000. This number was 100,000 smaller than in June, 1959, but was 300,000 greater than in June, 1957, before the last recession.

Employment in nonfarm establishments, seasonally adjusted, declined slightly from May to June. Manufacturing employment was reduced by layoffs in the steel industry and by strikes in aircraft manufacturing. The factory workweek increased by 0.1 hours to 40.0 hours from May to June, slightly less than the seasonal increase. Employment in service industries and state and local government rose.

Income

Total personal income rose to a seasonally adjusted annual rate of \$405.8 billion in June from \$404.7 billion in May despite a reduction of \$400 million in manufacturing wages and salaries stemming from the cuts in steel mill employment and strikes in the aircraft industry mentioned above. Increases of wages and salaries in the service industries and in state and local

government helped to offset the decline in manufacturing payrolls. Support was provided also by an increase of \$400 million in incomes of farm proprietors.

Net farm income rose to an annual rate of \$11.8 billion during the second quarter of this year, \$1.6 billion above the first quarter rate and the highest since the first quarter of last year. Cash receipts from farm marketings rose to a near record of \$34.1 billion, only \$0.3 billion under the record of \$34.4 billion in the third quarter of 1952. Farm production expenses were up slightly.

Sales and Prices

Retail sales, after seasonal adjustment, rose 1 per cent in June, after declining 2 per cent from April to May. Sales of automotive stores, apparel, and department stores rose while sales of appliance and furniture stores declined. For the second quarter as a whole total retail sales were 3 per cent above the first quarter of this year and the second quarter of 1959.

The wholesale price index remained stable in June and early July at the level of a year ago. Consumer prices increased slightly in May. Although prices of some foods declined, prices of some fresh vegetables rose sharply as a result of unfavorable weather in earlier months. Prices of services continued to increase. On the other hand, prices of new and used automobiles, gasoline, appliances, and some other non-food commodities declined at retail in May.

Financial Developments

Bank Reserves

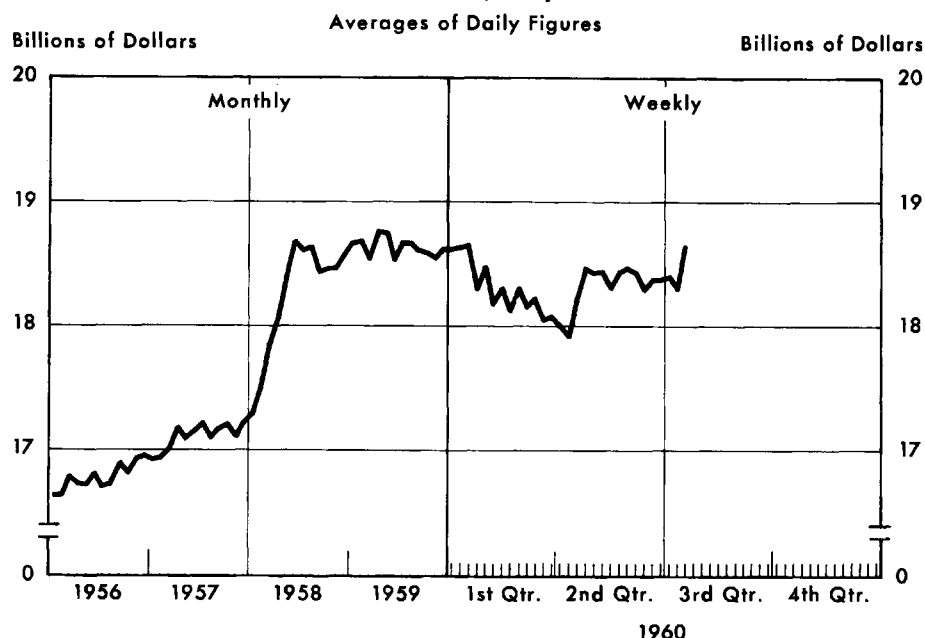
TOTAL RESERVES of member banks averaged over \$18.4 billion during the first three weeks of July. Adjusted for seasonal fluctuations this was about the same level that had been maintained since late April and early May (see chart, page 4). In the period from April 27 through July 20 member banks gained roughly \$1 billion of reserves from System purchases of Government securities but lost a similar amount from net currency and gold outflows and by reducing borrowings from the Federal Reserve Banks.

Borrowings of reserve funds by member banks from Reserve Banks have declined almost steadily this year. In the first 20 days of July total borrowings of member

banks averaged \$400 million, compared with \$635 million in March and \$905 million in January. The decline in borrowings reflected, in part, the decrease in interest rates on short-term Government securities making discounting as a method of adjusting reserve deficiencies relatively more costly as against selling securities. Reflecting primarily the decline in borrowings, member banks attained net free reserves in June and early July as against net borrowed reserves in the first five months this year.

During the first three-and-a-half months of this year total reserves of member banks adjusted for seasonal influences contracted from over \$18.6 billion to about \$18.0 billion. However, in the two weeks ending April 27, they recovered a large portion of the previous loss, rising to about \$18.4 billion, a level which

Total Reserves, Adjusted*



*Adjusted for seasonal changes and changes in reserve requirements in spring of 1958.
 Latest data plotted: Week Ending July 20, 1960, preliminary

activity was depressed, effective reserves (that is, total reserves adjusted for reserve requirement changes as well as seasonal influences) were increased rapidly as an expansionary measure. Hence, over the past three years effective reserves have risen at an average annual rate of 2.4 per cent.

Commercial Bank Credit

The volume of total reserves which banks have determines within a relatively narrow range the total amount of loans and investments they hold. Hence, with the decrease in the supply of reserves since January, commercial bank credit has contracted.

During the first half year, total bank credit declined an estimated \$2.8 billion. On the average in other recent years bank credit has shown only a slight net change during the first six months of the year.

Total loans rose about seasonally (\$2.7 billion) but less than in the same period of last year. Business, consumer, and agricultural loans increased. Real estate loans rose at a less rapid pace than in the corresponding periods of most other recent years, while loans on securities declined. In order to increase the amount of loans, banks sold a substantial amount of both Government and other securities on balance.

has since been maintained. Hence, from the first three weeks of the year to the first three weeks of July total reserves declined at a rate of about 2 per cent per year. In the St. Louis District daily average total reserves, seasonally adjusted, declined from \$658 million during December to \$645 million during the first twenty days of July, a 4 per cent annual rate.

AVERAGES OF DAILY FIGURES—ALL MEMBER BANKS

In Millions of Dollars

	Borrowings from F. R.	Net Free Reserves
1959:		
June	921	—513
Sept.	903	—493
Dec.	906	—424
1960:		
Jan.	905	—361
Feb.	816	—361
Mar.	635	—219
Apr.	603	—195
May	502	— 64
June	424	+ 31
July*	400	+100

*Based on 20 days.

Total reserves of all member banks, which averaged roughly \$18.4 billion in early July, were somewhat below the levels prevailing from mid-1958 to January 1960. During the first half of 1958, when economic

At district member banks total loans and investments, adjusted for seasonal influences, decreased \$57 million, or 1 per cent, in the first half of 1960. As in the rest of the nation, a modest rise in loans was more than offset by a drop in investments. Both the reserve city and country banks in the district shared in the credit contraction.

Money Supply and Turnover

Reflecting the contraction in commercial bank credit, the seasonally adjusted money supply declined during the first six months of 1960. At the end of June the money supply (demand deposits adjusted and currency outside banks) was estimated to be \$138.2 billion, or \$2.0 billion less than at the end of 1959. Over the past year the money supply has fallen \$2.7 billion or 1.9 per cent. By comparison, during the past three years the money supply has risen at an average annual rate of about 1 per cent.

The velocity of the money supply has apparently been rising. Hence, the flow of money payments has

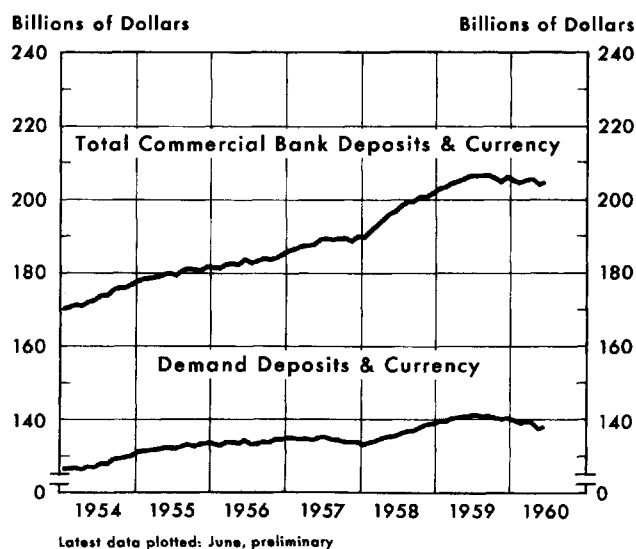
probably continued to rise despite the contraction in the quantity of money this year. Turnover of demand deposits at banks in reporting centers outside the seven large financial centers, was at the annual rate of 26.2 times per year in the second quarter of 1960 compared with 25.0 times per year in the fourth quarter last year. This increase in turnover was at an annual rate of 9.6 per cent. Most of the increase occurred during the first quarter this year; the rise in the second quarter was modest. Over the past two years velocity of these deposits has risen at an average annual rate of 7.5 per cent.

Interest Rates

During the first 21 days of July yields on three-month Treasury bills averaged 2.34 per cent, down sharply from 3.29 per cent in May and 4.49 per cent last December. In the first 21 days of July, interest rates averaged 3.86 per cent on long-term Government bonds as against 4.27 per cent last December. Many other market interest rates have worked lower but at a much more modest rate of decline. For instance, the interest rates on highest-grade corporate bonds decreased from 4.58 per cent last December to 4.43 per cent in early July. The lower interest rates reflect a reduction in the demand for funds, especially by the Federal Government. The decline in the demand for funds was partially offset by a contraction in the volume of bank credit and the money supply.

Despite the decline in interest rates since early January, rates are still relatively high compared with those commonly prevailing during the past twenty-five years, although not in comparison with periods before 1930. The rate of 2.35 per cent on three-month

Money Supply



bills in early July was higher than at any time from the thirties to early 1956. The current rate on long-term Treasury bonds is higher than at any time in the past quarter century before early 1959.

Debt-Management

On June 30 the Treasury offered \$3½ billion of 252-day Tax Anticipation bills for auction. The auction was held July 6, and the bills were dated July 13. Commercial banks were given Tax and Loan Account credit, and noncompetitive tenders were received up to \$500,000. In addition to covering anticipated seasonal needs for funds during the third quarter, part of the money was used to reduce the size of the July 15 one-year Treasury bill offering. Average rate on accepted bids was 2.823 per cent.

Also on June 30, the Treasury offered \$1½ billion of new one-year bills to replace the \$2 billion of bills which matured on July 15. Books were open until July 12 and the bills were dated July 15. There was no Tax and Loan Account credit. Average yield on accepted bids was 3.265 per cent.

In mid-August the Treasury has a \$9.6 billion note maturing. The largest part of the issue (\$5.6 billion) is held by Government investment accounts and the Federal Reserve Banks. Commercial banks owned \$0.7 billion and other investors held about \$3.3 billion at the end of May.

Fiscal Operations

Cash receipts and expenditures of the U.S. Treasury were a considerable stimulative force to economic activity during the fiscal year ending June 30, 1959 when the Treasury was operating at a cash deficit of over \$13 billion. Since then, however, the operations of the Treasury have had a dampening effect on business activity and prices. Treasury receipts, adjusted roughly for seasonal variation, have been rising progressively relative to expenditures.

NET CASH SURPLUS (+) OR DEFICIT (—) OF THE TREASURY In Millions of Dollars

Calendar Years	Current Quarter	Year Earlier	Change
1959:			
1st	— 106	+3,993	—4,099
2nd	— 389	+1,416	—1,805
3rd	—3,014	—5,516	—2,502
4th	—4,497	—7,132	+2,635
1960:			
1st	+3,824	— 106	+3,930
2nd	+4,400 p	— 389	+4,789

p—Preliminary

Cotton Acreage Allotments

MORE COTTON FARMERS have apparently been willing to trade higher guaranteed prices for the opportunity to increase acreage planted this year than last. Nevertheless, in view of the additional acreage placed in the Soil Bank, total cotton production is not likely to rise sharply. Total cotton supplies (production plus carryover) may be somewhat less in the marketing year beginning August 1, 1960 than in the current year as a strong foreign demand has substantially reduced expected carryover stocks. Reduced supplies coupled with lower price supports and an improving demand in the world market may reduce the cost of subsidies on the current crop compared to 1959.

The Agricultural Act of 1958 provides that each farm operator with a cotton acreage allotment may elect to comply either with the regular allotment plan of prior years called Choice "A", or the Choice "B" allotment plan which provides for more acres at reduced guaranteed support prices. If "A" is chosen, the cotton produced will be eligible for the full price support available (75 per cent of parity). On the other hand, if "B" is chosen, 40 per cent more acres may be planted than under "A" but guaranteed price supports would be only 65 per cent of parity.

Cotton farmers have elected to place 62,111 farms with approximately 4.3 million acres under the Choice "B" allotment plan for upland cotton this year. This is an almost 20 per cent larger acreage than was placed under the Choice "B" plan last year (Table 1).

Most of the gain in Choice "B" acreage this year occurred in the high-yielding areas of the West with some increase in the Southwest. Choice "B" allotments in the Delta states are about the same as last year and such allotments in the Southeast are down almost 50 per cent.

More than three-fourths of all allotments in the four western states this year are under the Choice "B" plan and in California, the leading cotton producing state of the group, almost nine-tenths of the acreage is Choice "B". Of the major Delta states, only Missouri has as much as 50 per cent of allotted acreage under the "B" plan, and such allotments account for only about 25 per cent of the Arkansas acreage and 15 per cent of the Tennessee and Mississippi acreages.

The willingness of farmers to trade higher prices for larger acreage allotments is apparently closely associated with the level of production efficiency. Measured by yields and other data, production is apparently most efficient in the irrigated high plains of West Texas and in the Western states. Next is the Mississippi Delta. Generally speaking these are the high-yielding areas which elected to produce a higher percentage of cotton under plan "B".

Regular allotments prior to the election of allotment plan were 16.3 million acres, the same this year as in 1959. However, the total allotments under both plans were somewhat above the 1959 level because more farmers elected to increase their regular acreage allotments by 40 per cent by choosing plan "B". Allotments under both plans totaled 17.5 million acres compared to 17.3 million acres last year.

TABLE 1
Per Cent of Cotton Allotments Under Choice "A" and Choice "B" Plans, 1959 and 1960

	Total Acreage Available for Distribution After Election (In thousands)	Per Cent Choice "B"	Per Cent Choice "A"
1959			
United States	17,328	20.6	79.4
West ¹	1,471	55.1	44.9
Southwest ²	8,044	19.3	80.7
Delta States ³	4,701	21.5	78.5
Southeast ⁴	3,112	5.9	94.1
1960			
United States	17,528	24.3	75.7
West ¹	1,579	79.4	20.6
Southwest ²	8,140	23.6	76.4
Delta States ³	4,702	21.3	78.7
Southeast ⁴	3,107	3.0	97.0

¹ West includes California, Arizona, New Mexico, and Nevada.

² Southwest includes Texas, Oklahoma, and Kansas.

³ Delta includes Missouri, Arkansas, Tennessee, Mississippi, Louisiana, Illinois, and Kentucky.

⁴ Southeast includes North Carolina, South Carolina, Georgia, Florida, Alabama, and Virginia.

Source: United States Department of Agriculture, *The Cotton Situation*.

With only a moderate increase in acreage placed in the Soil Bank and the provision this year for the

(Continued on page 10)

Treasury Bills

TO FINANCE THE LARGE FEDERAL DEBT, the Treasury has offered investors a wide variety of securities. These securities have ranged in maturity from 40 years to a few days. Some Government securities are marketable while others such as savings bonds are nonmarketable. Interest may be paid by coupons, discount, or appreciation of the redemption value. A particularly interesting and important debt instrument is the Treasury bill.

Treasury bills are a marketable Treasury security and are issued to mature anywhere from 13 weeks to one year. At the present time bills represent about 20 per cent of the total marketable Treasury issues outstanding. The distinguishing feature of bills is that they are sold on an auction basis at a discount with the yield or interest representing the difference between the purchase price and the face value of the bill.

Treasury bills were first sold in December 1929 for the purpose of reducing the impact of Treasury operations on the money market. The Treasury, prior to this time, had issued certificates of indebtedness of 1 to 3 month's maturity in order to tap short-term funds. The deficit financing during World War II brought a large increase in the amount of Treasury bills outstanding as well as all other types of Treasury issues. The quantity of bills outstanding since 1945 has risen irregularly, ranging from a low of \$11.4 billion in December 1947 to \$41.2 billion in February 1960. On July 20, 1960 there were \$36.4 billion bills outstanding.

Table I
MATURITY OF OUTSTANDING TREASURY BILLS
July 20, 1960

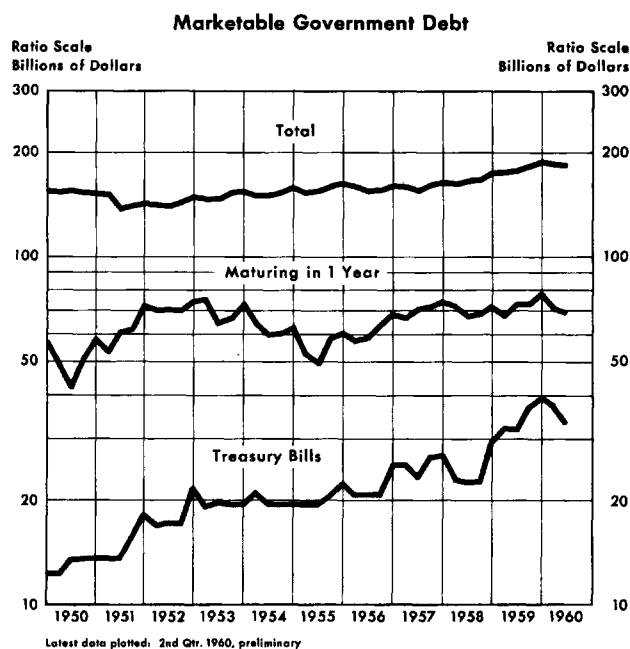
Maturing within	Amount (Billions of dollars)	Per Cent
3 months	\$21.8	60
3-6 months	7.6	21
6-12 months	7.0	19
	<u>\$36.4</u>	<u>100</u>

Government securities maturing within one year (of which bills represent a large percentage) possess the properties needed for liquidity—highest grade rating, marketability, and short maturity. Because of their liquidity these securities are often referred to as “near money.” Commercial banks, other financial institutions, large corporations, foreign, state, and local governments, and trust funds, use bills and other short-term Governments as a close alternative to cash. An increase in the volume of Treasury bills held by the public,

other things equal, reduces the demand for money balances (thus causing the velocity of money to rise).

Bills have assumed added significance because of the 4½ per cent interest rate ceiling on all Treasury issues maturing in 5 years or more. During most of 1959 and early 1960, the Treasury was compelled to limit its financing to relatively short-term issues. Partially as a result of this ceiling, all types of Treasury issues maturing within 5 years have increased. The amount of regularly issued Treasury bills outstanding increased from \$29.0 billion at the end of June 1959 to \$33.4 billion at the end of June 1960. At the end of June of last year bills accounted for 16 per cent of the Treasury's outstanding marketable debt and on June 30, 1960, 18 per cent.

Chart 1



Since the Federal Reserve-Treasury “accord” in 1951, the Federal Reserve has limited its open market operations almost exclusively to short-term securities, primarily Treasury bills. However, the purchases and sales by the Federal Reserve normally account for only a small share of the total transactions in bills. Holdings of Government securities by the Federal Reserve Banks as of June 30 were: Treasury bills \$2.5 billion, certificates of indebtedness \$8.5 billion, Treasury notes \$13.0 billion, and Government bonds \$2.5 billion.

The Treasury Bill Market

The Treasury bill market consists of two functionally distinct operations—the issuance of new bills and the trading in outstanding issues.

At present new offerings of 13-week (91-day) and 26-week (182-day) bills are made weekly and as a result there are 26 regular issues of bills outstanding. In April 1959 the Treasury initiated a series of special one-year bills which mature quarterly and are replaced by new bills of the same maturity. In addition to the regular and special bills, the Treasury from time to time offers Tax Anticipation bills. These bills are designed to attract funds accumulated by corporations in preparation for the quarterly tax date. Tax Anticipation bills, usually dated a few days after the tax payment deadline, are accepted by the Treasury at par in payment of taxes.

The Treasury normally announces its offering for new 13- and 26-week issues every Wednesday, more than a week in advance of the actual settlement date. Tenders are accepted until 1:30 p.m., Eastern time (12:30 p.m., Central time) the following Monday by the Federal Reserve Banks and their branches, acting as fiscal agents for the Treasury.

Treasury bills are sold on an auction basis below their par or face value. The market demand thereby sets the yield, thus relieving the Treasury of difficulties involved in setting a rate every week sufficiently high to attract the desired funds, but not so high as to result in a windfall gain for investors. The rate of yield on bills is computed on a discount basis and on the basis of a 360-day year. Thus, interest rates which are quoted on bills as a per cent of the face value of the issues understate the return on the funds invested on an annual rate. This differs from the computation of interest on other Government securities: certificates, notes, and bonds. On these other securities the interest rate is computed as the return on the actual money invested based on a calendar year.

This comparison can, perhaps, be made clear by means of an example. The average price of the 91-day bill issued June 23 was \$99.339 per \$100 face value. The quoted yield on this bill if held to maturity was 2.613 per cent per 360 days. (The return per day was $.661 \div 91 = .00726$. For 360 days the return would have been \$2.613. This was expressed as a rate of discount of 2.613 per cent per annum.)

The rate of return on this same issue computed as bond yield would have been 2.67 per cent. This is computed on the basis of the actual cost of the secur-

ity, which may be more or less than its par value, and on a 365-day year. The "equivalent bond yield" is always higher than the yield computed on a discount basis.

Tenders on bids may be of two types—competitive or noncompetitive. A noncompetitive bid is an agreement to purchase a specific quantity of bills at the average price of the accepted competitive bids. Noncompetitive tenders from any one bidder are limited to \$200,000 or less on 91-day bills and \$100,000 or less for 182-day bills and are accepted in full. On special issues of bills the maximum size of the noncompetitive tenders may vary. Noncompetitive bids are generally submitted by smaller investors who do not want to assume risks involved in a competitive tender. These risks are: 1) the possibility of bidding too low and not receiving any issues, or 2) bidding too high and thus paying a premium. The majority of bids, by number, received by the Reserve Banks are noncompetitive. However, a large majority of all new issues, by amount, are sold on a competitive basis to money market banks, Government security dealers, and other large investors primarily through the Federal Reserve Bank of New York.

Competitive bids are submitted principally by investors who have continuous contact with the money market, including the Federal Reserve System. A bid may contain an array of price-quantity relationships. That is, in order to assure that the minimum amount of bills needed will be obtained, the bidder may subscribe for this quantity at a price that is likely to be accepted. At lower prices (higher yields) additional quantities may be bid.

After the Treasury receives these bids from the Federal Reserve Banks and branches, it allots the noncompetitive tenders in full. The remainder of the

Table II
RESULTS OF OFFERING OF 13-WEEK TREASURY BILLS
May 5 - July 14

Date Issued	Yield			Per Cent of Lowest Price Accepted	Millions of Dollars	
	Average	Low	High		Applied for	Accepted
May 5	3.003	2.908	3.200	82%	1609.2	1000.1
12	3.274	3.193	3.343	9	1821.9	1200.1
19	3.793	3.699	3.853	20	1809.0	1200.1
26	3.497	3.402	3.560	37	1834.6	1200.1
June 2	3.184	3.141	3.216	27	1819.8	1100.2
9	2.716	2.651	2.777	50	1821.3	1200.1
16	2.292	2.267	2.346	28	2088.9	1200.3
23	2.613	2.552	2.643	45	2051.0	1200.2
30	2.399	2.338	2.449	3	1758.0	1100.1
July 7	2.307	2.279	2.346	56	1686.9	1000.1
14	2.567	2.480	2.623	10	1698.7	1000.3

offering is sold to the competitive bidders offering the highest price. The lowest price (highest yield) at which bills are issued is called the "stop out rate." Generally, only a portion of bids at the lowest price are accepted. On June 23, 1960, for instance, the stop out rate on 13-week bills was 2.643 per cent and 45 per cent of the bids at this price were accepted. Bidders attempt to arrive as close to the stop out rate as possible. The "ideal" bid from the point of view of a dealer or other investor was a price equivalent to a yield of 2.642 per cent because all of the bid would have been accepted. As seen in Table II the average rate is generally nearer the stop out rate than the low.

Outstanding Issues

There is an active market in outstanding Treasury bills. Although bills represent only about 20 per cent of the outstanding marketable Federal debt, they account for over half of the trading in Government securities. During June 1960 an estimated \$1.0 billion of bills were traded per business day. The major participants in the market are commercial banks, foreign central banks, insurance companies, nonfinancial corporations, state and local governments, the Federal Reserve System, and Government security dealers. Individuals also buy a moderate volume of bills.

Most transactions in Treasury bills are conducted through dealers specializing in Government securities. These dealers buy and sell Government securities for their own account as well as negotiate orders for their customers. Dealers help make a market by carrying a portfolio or inventory of securities and standing ready to buy or sell at quoted prices. A principal source of profit to the dealer is the spread between the bid (buying) and asked (selling) price.

Quotations are given in terms of percentage yield and are refined to 1/100 of 1 per cent (or 1 basis point). On July 1 an outstanding Treasury bill maturing in 85 days was quoted in the market at 2.12 per cent (\$99.499 per \$100) bid and 2.04 per cent (\$99.518 per \$100) asked. This spread of 8 basis points would result in a profit of \$190 on a dual transaction at the bid and asked price involving \$1 million. The usual spread on transactions of this maturity is between 5 and 7 basis points. But in periods of wide fluctuations and uncertainty concerning bill prices, as existed in early July, the dealers will widen the spread between the bid and asked price.

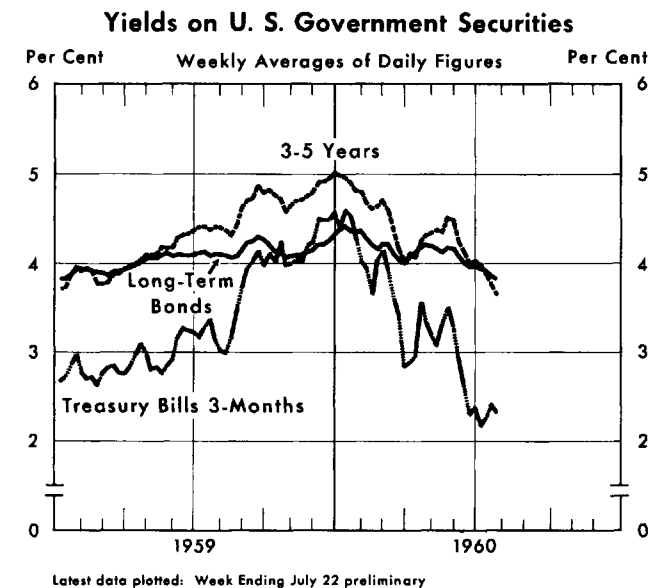
Most dealers have their main offices in the financial district of New York City and have branch offices in major cities throughout the country. These dealers have contacts with commercial banks, insurance companies, pension funds, other large corporations, and foreign central banks. Since there is no centralized

location where a large share of bills are traded, such as exists for stocks, the dealers perform the function of making a market by buying for their own portfolio and selling from it.

Yields on Bills

Yields on Treasury bills fluctuate considerably more than yields on longer term Government issues. This is

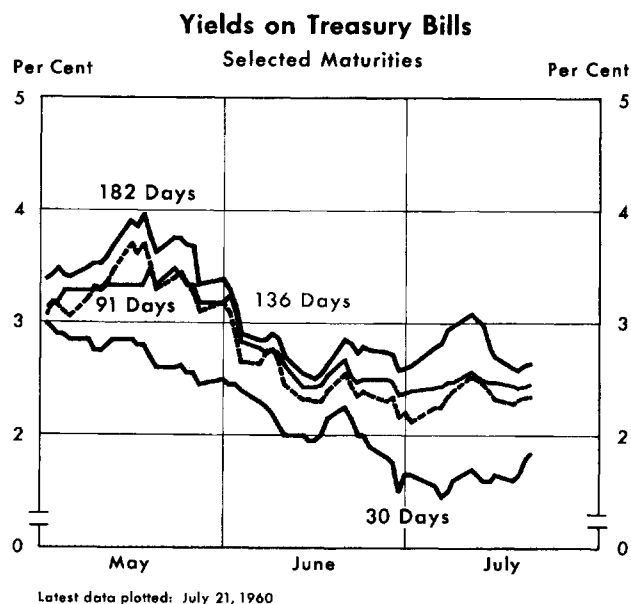
Chart 2



due in part to the fact that the demand for Treasury bills is derived from the demand for liquid assets. The demand for liquidity may vary greatly while the supply of Treasury bills at any one time is relatively fixed. However, the fact that bill yields may vary widely does not materially reduce the attractiveness of bills as an alternative to cash. Wide movements in yields result in only small changes in the price of a bill because of its nearness to maturity. Thus, a change of 1 percentage point in the yield of a 13-week bill is reflected in a price change of about \$2.50 per \$1,000 while the same yield change on a 25-year bond would result in a price change of about \$150.00. As this example shows, price fluctuations are minimized the nearer the security is to maturity.

The fluctuations among the various bill rates are brought out by Chart 3 (page 10), which shows the movement of four bill yields ranging in maturity from 30 to 182 days. This represents only a sample from the 31 rates now being quoted in the market. As would be expected, these rates generally move in parallel fashion since the only difference between them is the few days difference in maturity. However, there are certain striking divergencies from the "normal"

Chart 3



movements. For instance, the yield on the bill maturing in 136 days has usually been above bills of a shorter

er maturity. But during May this rate was below the 91-day bill rate over a 9-day period. Similarly, the spread between the different rates varied over the sample period.

The reasons for changes in the spread between various yields of bills stem from the purposes for which bills are used by purchasers. Treasury bills are held by most investors primarily because they are highly liquid assets; their yield represents for many holders a lesser consideration. The demand for bills which come due on a specific date may force a particular rate out of line temporarily with respect to other bill rates. Apparently a large buyer (or buyers) had need of a bill maturing about 136 days from the middle of May. This pushed the price of this bill up (yield down) with respect to other bill prices. Firms buy bills in anticipation of dividend dates, tax dates, interest payments, and other similar large cash commitments. The rate on any one bill may be highly sensitive to these demands, as the chart shows, while such demands may have little effect on the general level of bill rates.

Cotton Acreage Allotments (Continued from page 6)

first time for reapportionment of allotted acres, acreage planted to cotton is estimated to exceed the 1959 acreage planted by 3 per cent. Of the 17.3 million allotted acres in 1959, .5 million acres were placed in the Soil Bank, leaving 16.8 million available for planting. However, only 15.8 million or 94 per cent of this amount was planted, as no provision was made for farmers to release surplus allotments to other farmers who wished to plant more than their allotments. Acreage available for planting this year was about the same as in 1959 since the increase from greater participation in Choice "B" was offset by a moderate increase in acres placed in the Soil Bank. However, a larger per cent of the acres available was apparently planted this year, as a portion of the allotments not planted on farms receiving the initial allotment was released for reapportionment to other farms in the county or surrendered for reapportionment to other counties before planting time. Acres released still count toward the acreage history of the farm and county from which they were released. With this provision in effect, more than last year's 94 per cent of the available acres was planted. Total estimated plantings of 16.3 million acres are approximately 96 per cent of the acreage available for planting and 3 per cent greater than the acreage planted last year.

Despite the increase in acres planted, supplies of cotton in the 1960-61 marketing season may be somewhat

less than this year unless substantially higher yields than the record levels of the past two years are obtained. Assuming the yield per planted acre equal to the record level of the past two years, production on the 16.3 million planted acres would total 15.1 million bales, about .6 million more than last year. With an estimated carryover of 7.8 million bales (1.1 million less than in 1959) supplies of cotton would total 22.9 million bales or .7 million bales less than last year.

With the expected high level of foreign demand for cotton and lower domestic price supports, the cotton program may be somewhat less expensive to the Government than was the 1959 crop. Minimum support prices announced by the Department of Agriculture for 1960 Upland-Middling $\frac{7}{8}$ " basis, Choice "A" and Choice "B" cotton are 28.97 and 23.18 cents per pound respectively. These compare to support prices of 30.40 and 24.70 cents per pound last year. Announced payment-in-kind export subsidies for the current crop are 6 cents per pound, a reduction of 2 cents per pound from the rate on the 1959 crop. This reduction alone will represent a saving of approximately \$70 million in the support program assuming the same level of exports as anticipated this year. A growth in domestic demand, plus a strong foreign demand, for American cotton is expected to offset any increase in production, probably reducing the cost of domestic subsidies under the lower price supports.

FARM LAND VALUES

FARM LAND VALUES rose only 3.2 per cent in the year ending March 1, 1960, after moving upward for 19 years at the average rate of 7.3 per cent per year compounded. This high rate of gain made profitable the ownership of land after values were bid up beyond levels commensurate with returns to land from farming operations. Debt repayment capacity from earnings has become limited on many types of farms. However, the mortgage debt level relative to land values is in a favorable position and no outbreak of foreclosures is anticipated even in case of a moderate downturn in farm real estate prices.

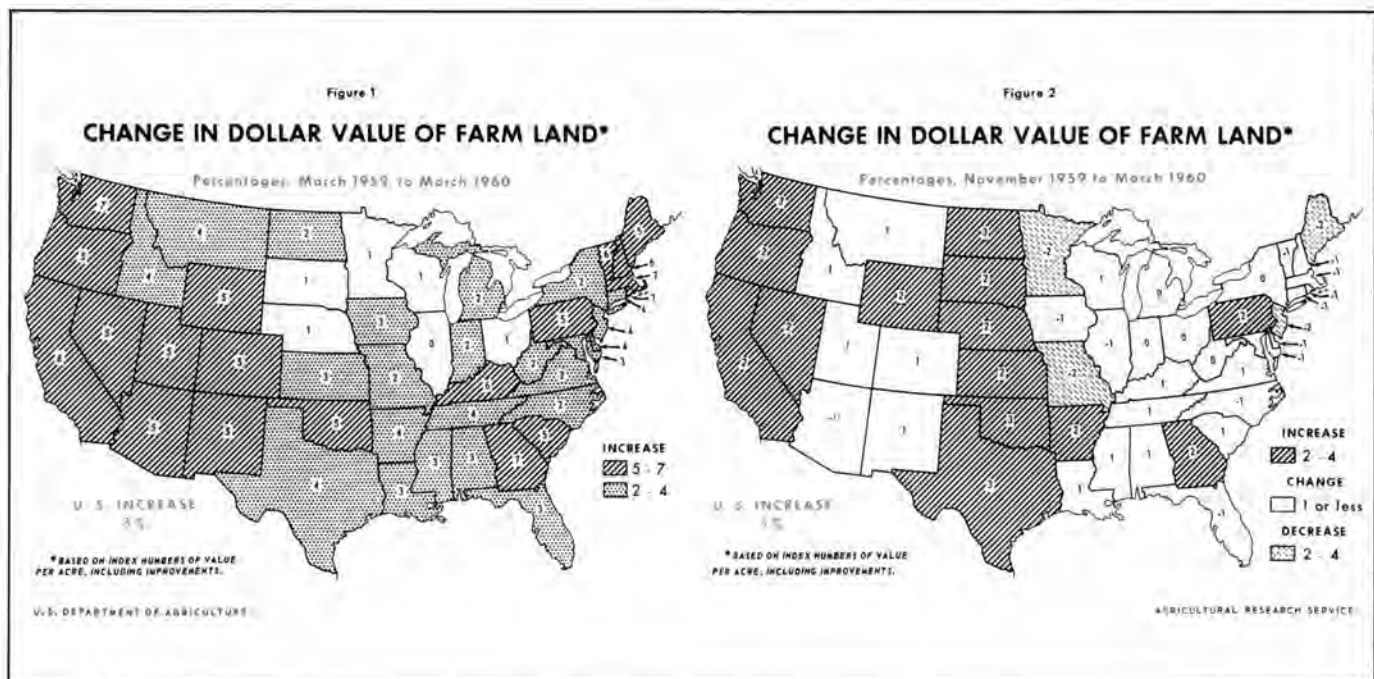
The average value of farm land in the nation increased only 3 per cent in the year ending March 1, 1960, after advances of 6 to 8 per cent in each of the previous three years according to the United States Department of Agriculture. Although annual increases were less in all major regions of the nation, the slowdown was most pronounced in the Corn Belt, Lake States, and the Northern Plains.¹ March 1, 1960 values

¹ Corn Belt includes Ohio, Indiana, Illinois, Iowa, and Missouri; Lake States—Michigan, Wisconsin, and Minnesota; Northern Plains—North Dakota, South Dakota, Nebraska, and Kansas.

in the Corn Belt and Lake States averaged only 1 per cent higher than a year earlier and values in the Northern Plains averaged only 2 per cent higher (see Chart 1). Furthermore, in the four months ending March 1 of this year average farm real estate values for the nation rose only one per cent and values in 21 states either remained the same or declined (see Chart 2).

Farm real estate prices have moved upward persistently and at a high rate since before World War II. Value of land and buildings increased from \$33.6 billion in 1940 to \$125.1 billion in 1959, an average gain of 7.3 per cent per year compounded for the 19-year period, but only a 3.2 per cent increase occurred from March 1959 to March 1960.² The persistency of farm real estate value gains during the 19 years of rapidly increasing prices made almost all farm land purchases

² A small portion of this increase is attributable to an increase of 97 million acres in farms, a net investment in buildings and land and water improvements. Such net investments probably account for about 1 per cent per year of the increase in farm real estate values. The increase in acreage has added about \$4.5 billion (1947-49 dollars) to land values since 1940, net investment in buildings an additional \$4 billion, and several hundred million dollars annually has been added through net investments in land and water improvements.



during the period profitable to the new owners. Values declined from levels of the previous year in only two of the 19 years and the decline was only about 2 per cent in each instance.

This long period of rising farm land prices made profitable the ownership of farm land after land prices had been bid up beyond levels commensurate with returns to land from farming. One possible factor in this paradox is that some farmers, despite the high price of the purchased acreage, have found it profitable to add land to their current holdings because it has made their operations more efficient. Such bidding up of land values has, in four of the last five years, pushed prices to levels where returns on the market value of land from farming have been below the interest rate on farm mortgages. Furthermore, since 1956 such returns have been below those on either corporate Aaa bonds or common stocks with the exception of 1958. Nevertheless, with the additional gains from rising real estate values coupled with the lower tax rate on capital appreciation, investments in farm land have been profitable during the years of relatively low returns on farming. However, this situation could quickly change with a leveling off or decline in farm land values. Instead of an average gain of about 9 per cent per year from farm real estate ownership as in the past five years, without the increment in land value the gains to ownership would probably have averaged only about 4 per cent. Furthermore, overall returns to land from farming operations were probably not over 3 per cent of market value in 1959 and are expected to be even smaller this year. With operating returns to land at such low levels almost any decline in land values would wipe out all gains to land owners. On the other hand, many farmers have such large gains in real estate values that they could take a substantial decline and still have a profit on the original purchase price.

One important aspect of the relatively wide disparity in land values and income is the reduced debt paying capacity of farmers. Maximum debts that can be repaid out of returns from farming operations on most types of commercial family-operated farms in the nation have already declined below two-thirds of the current market value of the farm, assuming a 20-year loan at 6 per cent interest, according to United States Department of Agriculture data. For sample farms of some types, specifically, dairy farms in Eastern and Western Wisconsin, cotton farms in the Southern Piedmont and Black Prairie Texas, small cotton farms in the Mississippi Delta and peanut and cotton farms in

the Southern Coastal Plains, debt paying capacity has already approached zero assuming a nominal allowance for family living. Furthermore, a loan representing 50 per cent of the 1959 market value of land would be difficult to carry on either cash-grain or hog-beef raising commercial family-operated farms in the Corn Belt in the absence of other sources of income.

In recent years income to farm operators from non-farm sources has become more important, accounting for almost one-third the total net income to farm operators in 1959 compared to the 1947-49 average of less than one-fourth. Such income may be important in repaying debts. However, it will probably not be an important factor in bidding up or retaining farm land values at levels beyond the debt repayment capacity of such land with more profitable alternative investment opportunities.

Mortgage debtwise, farmers are in much better condition to weather a downturn in real estate values than in 1920 when foreclosures became so prevalent. Although farm mortgage debt has been rising rapidly, more than doubling during the 1950's, so have real estate values with the result that debt-to-value ratios have risen relatively slowly. In early 1960 farm mortgage debts were equivalent to 9.6 per cent of the value of farm real estate, up from a low point of 6.9 per cent in 1949. Nevertheless, debt-to-value ratios are still below levels throughout the period between World War I and World War II and are only about one-third the peak reached in 1933 (see Chart 3).

Figure 3

