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FEDERAL RESERVE BANK OF ST. LOUIS

Review

CONTENTS

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Treasury Debt Operations in the First Half of 1964

THE UNITED STATES TREASURY conducted four major refundings and made one special cash offering to the public during the first six months of 1964. These operations, plus the regular weekly offerings of 91- and 182-day Treasury bills and the regular monthly offerings of one-year bills, provided the Government with funds needed to finance its activities. In addition, the terms of these offerings were designed to contribute to economic stability and to provide a balanced debt structure.

Economic conditions were generally favorable for issuing longer term obligations during the first half of 1964. Cash needs of the Treasury were seasonally light. Domestic business activity was at a high level and expanding, and interest rates were nearly stable. Fiscal and monetary actions were stimulative; taxes were cut sharply early in the period, and the money supply had expanded at a 3.7 per cent annual rate since September 1962, about double the average rate since 1951. The country's balance of payments showed considerable improvement, reducing the need for the Treasury to issue short-term securities to prevent declines in short-term interest rates.

Details of the four refundings in the first half of 1964 and the April cash offering are presented on the following pages and summarized in Table I. In addition, the table lists the regular one-year bills issued during the period. At the beginning of January the public debt, subject to debt limitation, totaled $310 billion, and over the six months it changed only slightly as redemptions nearly matched the new issues. Since tax receipts are higher in the first half of the year, the Treasury typically reduces the debt in this period.

January Offering of Tax Anticipation Bills—On January 9, the Treasury offered $2.5 billion of 159-day June tax anticipation bills. The funds obtained from this issue were used to redeem $2.5 billion of one-year bills maturing January 15. Subscriptions totaled $2.8 billion, and the average rate on accepted bids was 3.65 per cent.

January Advance Refunding—In early January, the Treasury announced a major advance refunding operation. Outstanding securities totaling $24.7 billion were involved—$15.3 billion held by the public (i.e., outside the Treasury trust funds and the Federal Reserve Banks). Holders of these securities – notes and bonds maturing between August 1964 and May 1965—were given the opportunity to exchange them for 4 per cent bonds of August 1970 or 4¼ per cent bonds of May 1975-85.

The Treasury's objective in the January advance refunding was to achieve some debt extension and to provide for additional flexibility in debt operations later in the year. Early January was deemed an opportune time because of the stability of interest rates; also, an improved cash outlook for the Treasury eliminated the need for cash borrowing at that time.

Exchange subscriptions received amounted to $2.2 billion ($2.0 billion by the public) for the 4 per cent bonds, to which allotments were made in full. Subscriptions totaled $892 million ($742 million by the public) for the 4¼ per cent bonds, to which allotments of $748 million were made.

Table I

TREASURY MARKETABLE DEBT OPERATIONS
JAN. 1-JUNE 30, 1964

(Excluding regular weekly Treasury bill offerings)

Date Issued	Amount (billions)	Issues		Type of Operation
Jan. 3	$ 1.0	1-year Bills	12-31-64	Cash offering
Jan. 15	2.5	Tax Bills	6-22-64	Refunding of 1-15-64 bills
Jan. 22	2.2	4% Bonds	8-15-70	Advance refunding of six
	.7	4¼% Bonds	5-15-75/85	1965 and 1966 issues
Feb. 6	1.0	1-year Bills	1-31-65	Cash offering
Feb. 15	6.2	3⅞% Notes	8-13-65	Refunding 2-15-64 maturities
	1.8	4% Notes	8-15-66	Refunding 2-15-64 maturities
Mar. 3	1.0	1-year Bills	2-28-65	Cash offering
Apr. 8	1.0	3⅞% Notes	8-13-65	Cash offering
Apr. 8	1.0	1-year Bills	3-31-65	Cash offering
May 6	1.0	1-year Bills	4-30-65	Cash offering
May 15	8.5	4% Notes	11-15-65	Refunding 5-15-64 maturities
	1.5	4¼% Bonds	5-15-74	Refunding 5-15-64 maturities
May 28	1.0	1-year Bills	5-31-65	Cash offering
	$30.4			

Source: Treasury Bulletin

Compared with some previous advance refundings, the January offering was small in volume and produced a low subscription rate (subscriptions by the public as a proportion of their holdings of securities eligible for exchange). Eligible securities outstanding totaled $15.3 billion, and the subscription rate was 18.1 per cent. In the September 1963 refunding, $23.0 billion in eligible securities were outstanding, and the subscription rate was 28.4 per cent.

Despite a modest yield inducement on the longer maturities offered by the Treasury, most investors were reluctant to exchange for them. Apparently, interest rates were expected to rise along with the anticipated expansion of business activity. Such expectations lessened the appeal of long-term securities because a rise in yields means a greater decline in prices of long-term than of short-term securities.

February Refunding—The Treasury followed its January advance refunding with a large refunding operation in February. Holders of $6.7 billion of 3¼ per cent certificates and $1.6 billion of 3 per cent bonds, both maturing on February 15, were offered in exchange 3⅞ per cent 18-month notes, at a discount to yield 3.96 per cent, and an additional amount of 4 per cent 30-month notes at par. The public's holdings of maturing certificates and bonds totaled $4.3 billion.

Attrition on this refunding was quite low as only 7.8 per cent of the publicly-owned securities were turned in for cash. This response probably resulted because of shorter maturities offered and may have indicated that there was some downward revision of yield expectations in late January. The administration had revised downward its spending estimates for the year, thus reducing the need for Treasury borrowing. Also, the balance of payments had shown some improvement, which helped to remove speculation about a shift to less easy monetary policy.

April Cash Offering—In late March, the Treasury announced an offering for cash of $1 billion of 3⅞ per cent Treasury notes due August 13, 1965. These notes were priced to yield 4.10 per cent. This offering was designed to complete the Treasury's cash needs for fiscal 1964, ending June 30.

Better-than-expected tax receipts had reduced cash borrowing needs below earlier estimates.

Response to this cash offering was unusually heavy. Subscriptions received totaled $10.2 billion – $8.4 billion from commercial banks. Banks were attracted by the tax and loan account privileges offered on this issue. This feature allows commercial banks to make payment by crediting the Treasury's tax and loan account and increases the effective rate of return by giving the bank use of the funds until they are "called" by the Treasury. Total allotments were $1 billion.

May Refunding—The final sizable refunding operation of the first half of 1964 took place in early May. The Treasury had a large cash balance and was thereby in a position to absorb above-average attrition. Of the $10.6 billion of certificates and notes maturing on May 15, $4.2 billion were held by the public.

In an attempt to achieve additional debt extension, the Treasury offered a 4¼ per cent 10-year bond at par. In addition, the Treasury offered a 4 per cent 18-month note at 99.875 to yield 4.09 per cent. Investor response to the longer term issue was relatively large, apparently indicating that investors were expecting yields to remain stable or decline. Private investors took in exchange for the maturing rights $2.1 billion of the notes and $1.5 billion of the 10-year bonds. The bonds had considerable appeal because at that time no comparable maturity issue carried a coupon as high as 4¼ per cent. Attrition on the publicly held portion of the maturing securities amounted to an estimated 14.3 per cent.

Economic Effects

Treasury debt operations have an influence on economic activity by affecting the level and structure of interest rates and by affecting the volume of liquid assets held by the public. The exact effect of debt operations is difficult to assess, however. Interest rates also reflect private supply and demand for funds and actions by the monetary authorities. Liquidity of a security is measurable only in rough terms, and little is known about changes in the public's demand for liquid instruments.

During the first quarter of 1964, interest rates moved upward slightly (Chart 1). The volume of securities sold by the Treasury probably had little to do with this rate increase since the outstanding Federal debt changed only slightly. There was little change in the structure of rates, except for intermediate-term (3- to 5-year) yields which increased more rapidly than long and short yields late in the quarter. Since the Treasury did not issue any securities within this range, this rate increase must have resulted primarily from other factors. Despite two significant refunding operations during the first quarter, the average maturity of the Federal debt remained essentially unchanged (Chart 2).

CHART 1 Yields on U.S. Government Securities

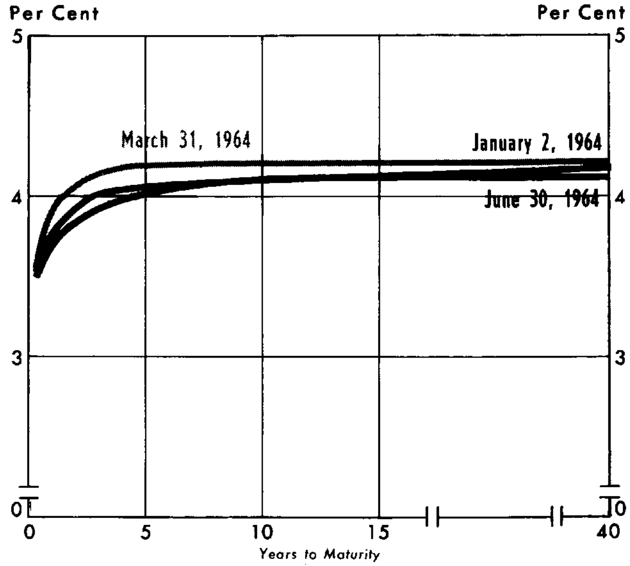
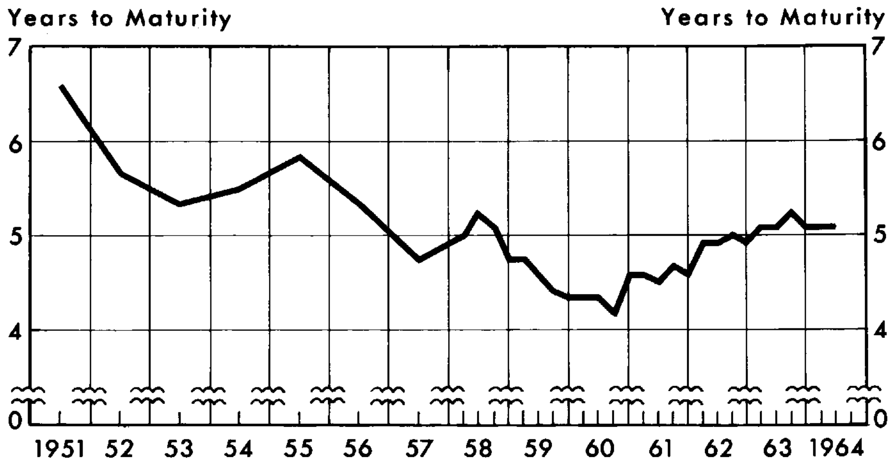


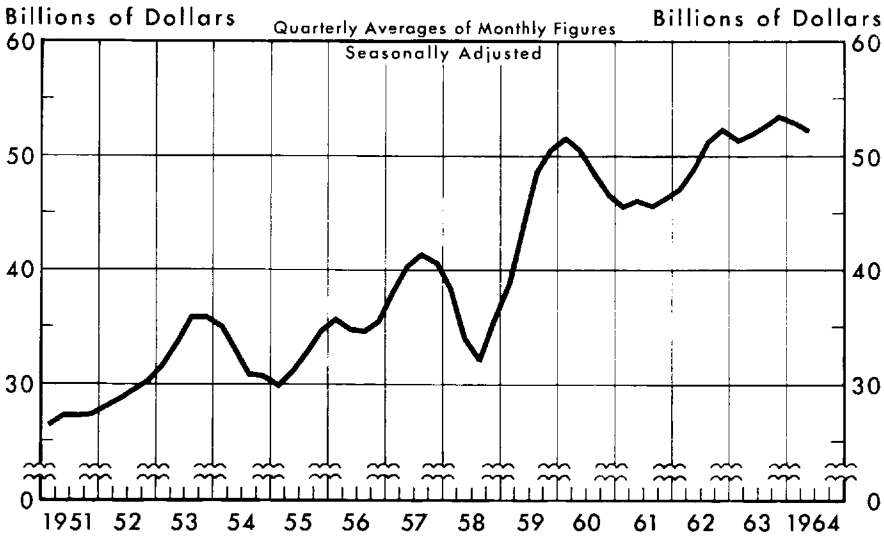
CHART 2

Average Maturity of the Marketable Government Debt



Source: U.S. Treasury Department
Latest data plotted: 2nd Quarter 1964, preliminary

CHART 3 **Short-Term Government Securities**
Held by Nonbank Public



Latest data plotted: 2nd Quarter 1964, estimated

Table II

TREASURY MARKETABLE SECURITIES MATURING JULY 1-DEC. 31, 1964

(Excluding regular weekly Treasury bills)

Maturity Date	Amount (billions)	Issue
July 15	$ 2.0	3.582% Special Bill
Aug. 15	2.0	5% Note
	4.1	3¾% Note
Aug. 31	1.0	3.575% Bill
Sept. 30	1.0	3.586% Bill
Oct. 1	.5	1½% Note
Oct. 31	1.0	3.633% Bill
Nov. 15	3.9	4⅞% Note
	6.0	3¾% Note
Nov. 30	1.0	3.590% Bill
Dec. 31	1.0	3.707% Bill
	$23.5	

Source: Treasury Bulletin

Yields tended to move downward slightly during the second quarter. Intermediate- and long-term yields decreased to levels prevailing at the beginning of the year. Bill yields decreased to below the January 1 level in June. It does not appear that the Treasury was a significant force tending to cause the lower yields. The Treasury attempted to exploit the easing credit conditions in an expanding economy to lengthen the average maturity. Preliminary estimates show that it was successful only in countering the passage of time.

An alternative measure of the effect of Treasury debt management operations on the public's liquidity is the volume of short-term obligations held by the nonbank public rather than the average maturity of the debt. Short-term marketable obligations of the Federal Government are generally considered to be liquid, but other issues are not generally considered as liquid regardless of maturity because they fluctuate more in price with interest rate changes. Chart 3 presents a time series of Government securities maturing within one year plus the "phasing in" of those maturing within the one- to two-year range.

By this measure, debt management during the first half of the year was somewhat restrictive in its impact on the economy. Nonbank holdings of short-term marketable securities declined from a seasonally adjusted average of $53.4 billion in the fourth quarter of 1963 to an estimated $52.2 billion during the second quarter of 1964.

In summary, debt officials took actions to lengthen the maturity of the debt during the first six months of 1964. Economic conditions and monetary and fiscal actions provided a favorable environment for some debt extension, and it was widely felt that a longer average maturity of the Federal debt would be desirable. Despite the actions taken, the debt was not lengthened since the passage of time offset the actions of the Treasury. Evaluation of the impact of these operations on the economy is difficult, but the effects on both interest rates and the public's holdings of liquid assets appear to have been slight, indicating neither a strong stimulative nor dampening effect.

Prospects for the Balance of 1964

The Treasury is expected to engage in several large refundings and to make two or three cash offerings during the remainder of this year. Table II lists the outstanding marketable Treasury issues (excluding 91-day and 182-day bills) that will mature during this period. These $23.5 billion of securities will need to be replaced or redeemed. Debt officials currently forecast that $7-9 billion in new cash will have to be raised, primarily to provide funds for seasonal needs. In addition, economic conditions may be appropriate for advance refundings of securities with maturities in 1965 or after.

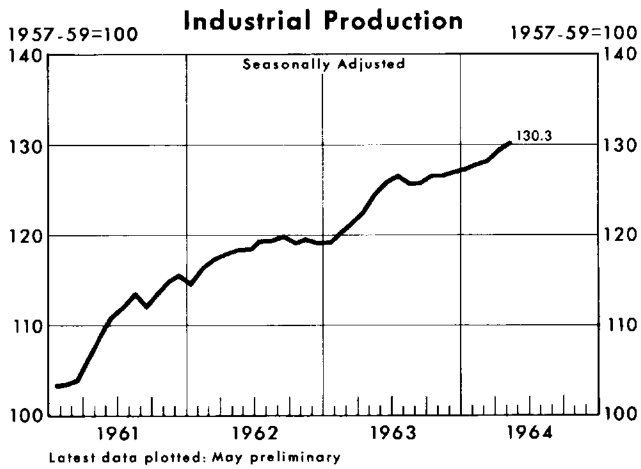
Interest rates, maturities, and other terms placed on the new issues will be set in view of market conditions and the level of and prospects for economic activity at the time of the offerings. The economy at mid-year is strong and apparently rising, indicating that some debt lengthening may be appropriate.

KEITH M. CARLSON

The Economy Continues Strong

Recent Business Developments

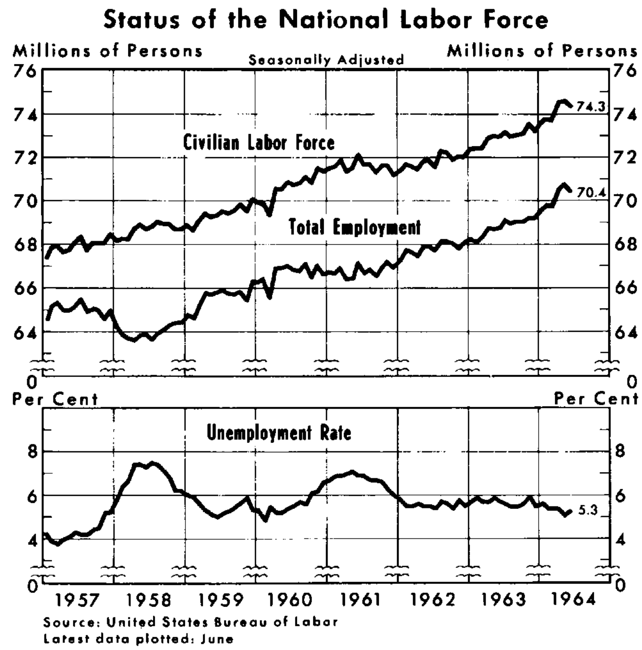
ECONOMIC ACTIVITY in the nation has continued to advance strongly, as output, employment, incomes, and spending have all grown significantly. From March to May industrial production spurted forward



at a 9 per cent annual rate, personal income at a 5 per cent rate, and retail sales at a rate of about 12 per cent. From March to June civilian employment increased at a rate of 3.3 per cent. Most of these rates were well above the average rates of increase during the 1961-64 expansion as a whole and above longer run growth rates. The recent rise in economic activity has been accompanied by relatively stable prices. So far in 1964, consumer prices have risen only slightly, and wholesale prices are about unchanged.

The index of industrial production in May rose to 130.3 per cent of the 1957-59 average, as output of consumer goods, equipment, and materials all rose substantially. In June, according to preliminary data, auto production increased over the May level, while iron and steel production eased slightly.

The labor market has also shown strength in recent months. Since March, employment has been growing at an annual rate of 3.3 per cent compared with an average rate of 1.1 per cent in the 1951-63 period. Recent gains in employment indicate a general strengthening of the demand for labor.



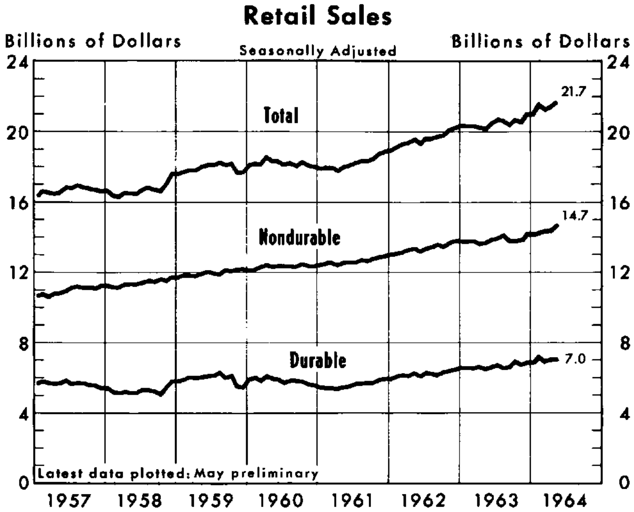
Personal income at $485 billion in May was up at a 5 per cent annual rate from March and at a 4.2 per cent rate from the first of the year. Wages and salaries, interest income, and business and professional income have all increased substantially in recent months.

Retail sales in June continued at about the May level. Sales in May were $21.7 billion, up at a 12 per cent annual rate since March and at a 10 per cent

July Advance Refunding Announced

ON JULY 8, the Treasury announced an advance refunding involving $41.8 billion of outstanding securities, the largest to date. Nine issues of bonds and notes maturing from August 15, 1964 to February 1967 are eligible for exchange. Holders of these securities may exchange them for a new 4⅛ per cent bond maturing in 1973 and two reopened issues, a 4 per cent bond maturing in 1969 and a 4¼ per cent bond maturing 1987-92. The public holds $26.6 billion of the eligible securities and the Federal Reserve and other official agencies, $15.2 billion.

rate since the first of the year. In May, most of the rise was concentrated in sales of nondurable goods. Strong sales were reported at apparel, drug, and general merchandise stores. In June, a decline in durables sales, primarily automotive and furniture and appliance, was about offset by continued gains in nondurables.



Source: U.S. Department of Commerce

The wholesale commodity price index edged up slightly in June. In late June, at 100.4 per cent of the 1957-59 average, the index was up 0.3 over May, but virtually unchanged from the annual averages from 1958 through 1963. The consumer price index was 107.8 in May (1957-59 = 100), the same as in April and about 1.5 per cent above a year earlier.

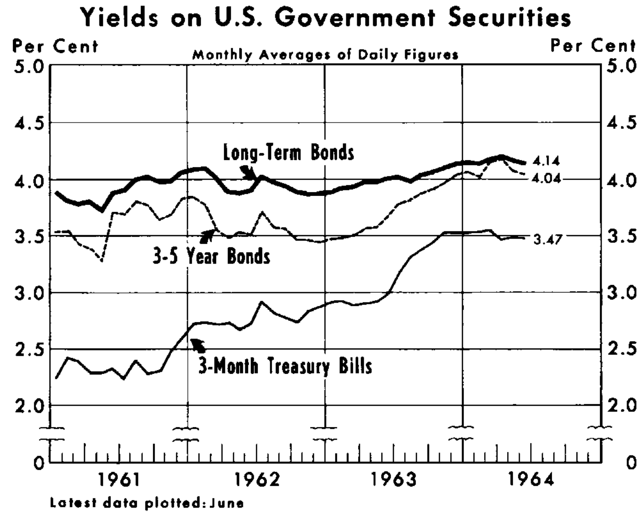
Recent Financial Developments

Recent financial data point to some slowdown in the rate of expansion of the financial sector. The rate of expansion of the money supply (demand deposits and currency) has been substantially less during the past seven months than during the previous year. According to the revised series, the money supply increased at an annual rate of 3.6 per cent from March to June and at a 2.3 per cent rate since November 1963. From September 1962 to November 1963, the rate of increase was 4.5 per cent. Most of the recent increase in the money supply has occurred in the currency component. Since November, currency has been growing at a 5.8 per cent annual rate, while demand deposits have increased at an annual rate of only 1.3 per cent.

There has also been some slowdown in the rate of expansion of money supply plus time deposits in the past seven months. Again, according to the revised series, money supply plus time deposits has increased at a rate of 6.2 per cent from March to June and at the same rate since November 1963. From September 1962 to November 1963, the rate of increase was 9.0 per cent.

According to preliminary data, total bank credit increased at an annual rate of about 6 per cent from March to June. This is below the 8 per cent rate of increase since November, but about the same as the average rate in the 1951-63 period. A substantial rise in loans in June was partially offset by continued liquidation of investments.

Interest rates on both long-term and 3- to 5-year bonds continued to decline slightly during June. Rates on both have been declining since mid-April and are now at about the January level. The three-month Treasury bill rate was 3.47 per cent at the end of June, down slightly from mid-June, but at about the same level that has prevailed since October. The six-month bill rate, which averaged 3.56 per cent in June, has been declining since March.



Regional Economic Development

Economic activity in the Eighth District, which had been on a plateau during the first four months of this year, may have shown some improvement since April. Business loans at weekly reporting banks increased markedly from April to June, after being about unchanged for half a year. Bank deposits have continued to rise at about a 9 per cent annual rate, with most of the gain in time deposits. Value added by manufacturing has also continued to rise. On the other hand, total payroll employment in the major labor markets of the district has shown little net change since January. The volume of debits at district reporting banks has been about unchanged for nine months.

Recent Trends in Time Deposits

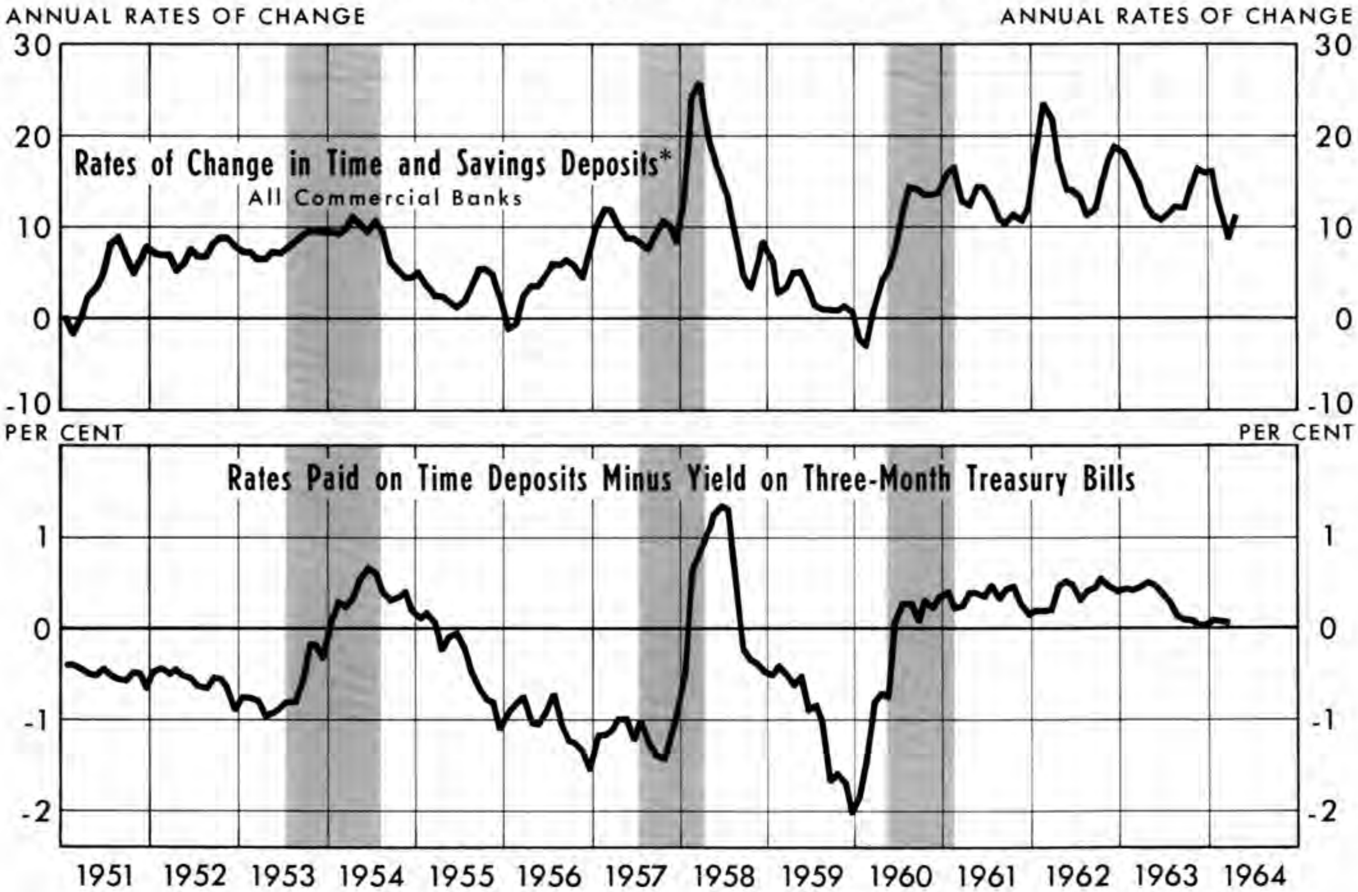
TIME DEPOSITS have risen at a remarkably high and steady rate since mid-1960. This performance has differed markedly from the pattern which had characterized earlier postwar business cycles.[1] The rate of increase of time deposits rose sharply during the three most recent recessions. Following the first two of these recessions—that is, during the 1954-57 and 1958-60 periods of recovery and expansion — there were prompt and sustained moderations in the rate of time deposit growth (see Chart 1). In contrast, the rapid increase in time deposits which began in mid-1960 at the beginning of the most recent recession has not yet abated.

What forces accounted for the declines in the rate of time deposit growth in the two earlier recoveries, and what different complex of forces has accounted for the maintenance of such a rapid rate of increase during this most recent three-year period of expansion? Some light may be shed on this question by consideration of the major types of deposits included in the aggregate of time deposits. Specifically, it may be useful to highlight the differences between those time deposits which are held largely by households and those which are commonly held by businesses.

[1] For a discussion of the cyclical behavior of time deposits, see "Movements in Time and Savings Deposits 1951-62" in the March 1963 issue of this *Review*.

Chart 1

Movements in Time Deposits and the Rate Differential



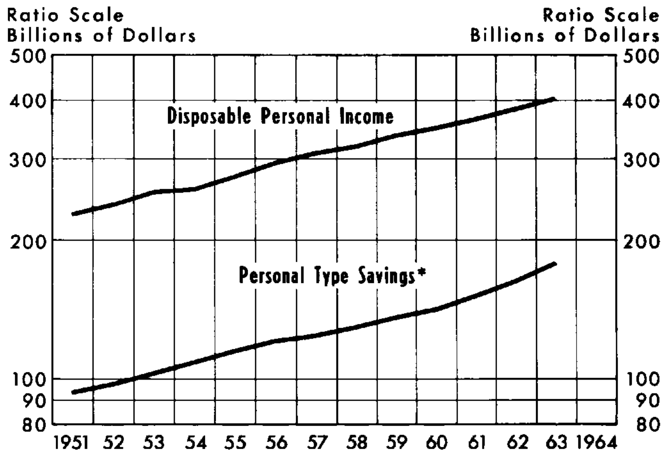
*Three-month moving averages of seasonally adjusted data, weighted 1-2-1.

Major Types of Time Deposits

Time deposits at commercial banks include several types of liabilities (see box on page 10). Passbook savings are the largest component, accounting for nearly 70 per cent of the total late last year. Savings accounts are held primarily by individuals or by non-profit organizations and are thought to be used largely as a savings medium.[2] These deposits compete most directly with such alternative savings media as deposits in mutual savings banks, shares in savings and loan associations and in credit unions, Government savings bonds, and postal savings. The public's holdings of savings-type assets tend to rise steadily year after year, similarly to the growth in personal income (see Chart 2). As a first approximation, therefore, it is reasonable to expect that movements in savings accounts at commercial banks will be associated with

Chart 2

Income and Savings



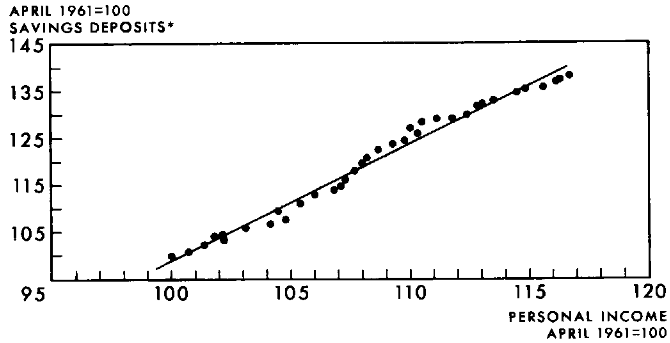
*Includes Mutual Savings, Postal Savings, Savings and Loan Shares, and U.S. Government Savings Bonds.

movements in personal income. Chart 3 shows a scatter diagram of savings deposits on personal income. The fit of the line through the scatter of observations is quite close.[3]

Negotiable time certificates of deposit are another important segment of time deposits, making up about 10 per cent of the total. These certificates are used as a short-term investment medium for businesses, state and local governments, and others seeking a temporary abode for large sums of money. CD's appear to

Chart 3

Personal Income and Savings Deposits



*Weekly Reporting Member Banks.

compete most directly for investable funds with short-term marketable securities.

Time Deposit Behavior Since Early 1961

As suggested above, during the 1954-57 and 1958-60 periods of business expansion there were declines in the rate of increase in total time deposits (see Chart 1). Whereas time deposits had risen at annual rates of 10 and 15 per cent during the 1953-54 and 1957-58 recessions, respectively, these deposits rose at 6 and 5 per cent rates during the subsequent expansions (Table I).

Table I

RATES OF INCREASE IN TIME DEPOSITS
All Commercial Banks

(Per Cent Changes at Annual Rates)

Periods	Recessions	Recovery - Expansions
July 1953-July 1957	10.3	5.5
July 1957-May 1960	15.0	4.8
May 1960-May 1964	14.6	17.4

It appears that changes in these deposits may have been associated with changes in the relationship between yields on short-term marketable securities and rates paid on time deposits (Chart 1). Because the rates which banks pay on time deposits have tended to be relatively insensitive to changing economic conditions, declines in short-term market rates during recessions have tended to bring about rate discrepancies in favor of time deposits.[4] During such periods, an

[2] For many years, banks also have issued certificates of deposit in denominations sufficiently small to be attractive to the individual saver.

[3] Variations in personal income (indexed such that April 1961 = 100) "explain" about 98 per cent of the variation in savings accounts (also indexed with April 1961 = 100). However, deviations around the regression line are not randomly distributed, suggesting that other important factors may have been omitted. Savings deposit data are discussed in footnote 6.

[4] There is no continuous monthly series for the 1951-63 period showing rates paid by commercial banks on time certificates. However, there is an annual series which expresses the costs of member banks stemming from payments on time and savings accounts as a percentage of their holdings of these deposits. The quarterly series used in this article was devised by Frank de Leeuw, Board of Governors of the Federal Reserve System. It is an interpolation (based on regression techniques) from the annual series. Because the estimates of rates paid on time deposits reflect payments on a wide variety of time deposits, the differential shown on Chart 1 should be interpreted with great care. In particular, this differential *does not* accurately reflect the difference between yields on Treasury bills and the rates which banks pay on CD's.

incentive is created for holders of short-term funds to shift their investment portfolios toward time deposits.

Conversely, during the 1954-57 and 1958-60 periods of expansion the decline in the rate of growth in time deposits was associated with a pronounced increase in yields on short-term marketable securities. Thus, within a very short time after business had begun expanding, yields on such marketable securities as Treasury bills rose above the rates paid on time deposits, providing an incentive for holders of liquid assets to move into market instruments. During much of the 1954-57 expansion the maximum rate which banks were permitted to pay on time deposits was 2.50 per cent. During the 1958-60 expansion the maximum rate was 3.00 per cent (Table II).

Table II

MAXIMUM RATES PAYABLE ON TIME CERTIFICATES OF DEPOSIT*

(Per cent)

	Maturity			
Period	Less than 90 Days	90-179 Days	180 Days to 1 Year	1 Year and Over
Jan. 1, 1936 to Dec. 31, 1956..	1	2.00	2.50	2.50
Jan. 1, 1957 to Dec. 31, 1961..	1	2.50	3.00	3.00
Jan. 1, 1962 to July 16, 1963..	1	2.50	3.50	4.00
Since July 17, 1963..........	1	4.00	4.00	4.00

* Effective October 15, 1962, foreign official institutions were exempted for a 3-year period from Regulation Q ceilings.

During 1961

Both interest rate and time deposit experience since early 1961 has departed from this pattern. Total time deposits had risen at a 15 per cent annual rate during the 1960-61 recession, comparable to rates of increase in earlier postwar recessions. During the recession, yields on short-term marketable securities were considerably lower than rates paid on time deposits.

Commercial banks were able to offer relatively favorable rates on CD's and other time deposits during 1961 because short-term interest rates did not rise appreciably until late in the year, even though the recovery had begun around February (see Chart 4). In addition, with the development of a secondary market for negotiable certificates of deposit during 1961, those concerned with the management of sizable sums of money no longer needed to mesh the maturity of time certificates with the timing of their prospective needs for funds. Thus, negotiable certificates of deposit became an increasingly attractive investment medium.[5] In view of these combined factors, time deposits at commercial banks continued to expand rapidly after February 1961, rising at a 12 per cent rate.

The rapid expansion in time deposits during 1961 reflected substantial increases both in savings accounts and in the other components of time deposits (see Chart 4). The savings accounts component at weekly reporting member banks rose at an average annual rate of 12 per cent from April (the first month these data were reported on a regular basis) to the end of 1961. Time deposits other than passbook savings deposits expanded at a 30 per cent rate during the period (Table III). At the end of 1961 negotiable time certificates of deposit comprised about 28 per cent of "other" time deposits at weekly reporting banks.[6]

[5] See "Trends in Banking and Finance—Negotiable Certificates of Deposit" and "Negotiable Time Certificates—One Year Later" in the February 1963 and February 1964 issues of *Business Conditions*, a monthly publication of the Federal Reserve Bank of Chicago. Also see "Negotiable Time Certificates of Deposit" in the May 1964 issue of the *Economic Review* of the Federal Reserve Bank of Cleveland.

[6] Data relating to savings accounts and "other" time deposits are available on a monthly basis only since April 1961 and are confined to holdings at weekly reporting member banks. Quarterly movements in these deposits since April 1961 at weekly reporting member banks are similar to quarterly movements at all member banks and all commercial banks. It should be noted that the "other" time component discussed in connection with the weekly reporting bank data is not exactly the same as the "other" time deposits, IPC, component discussed in the box on p. 10. Other time deposits at weekly reporting banks consist of the difference between savings and total time deposits.

Chart 4

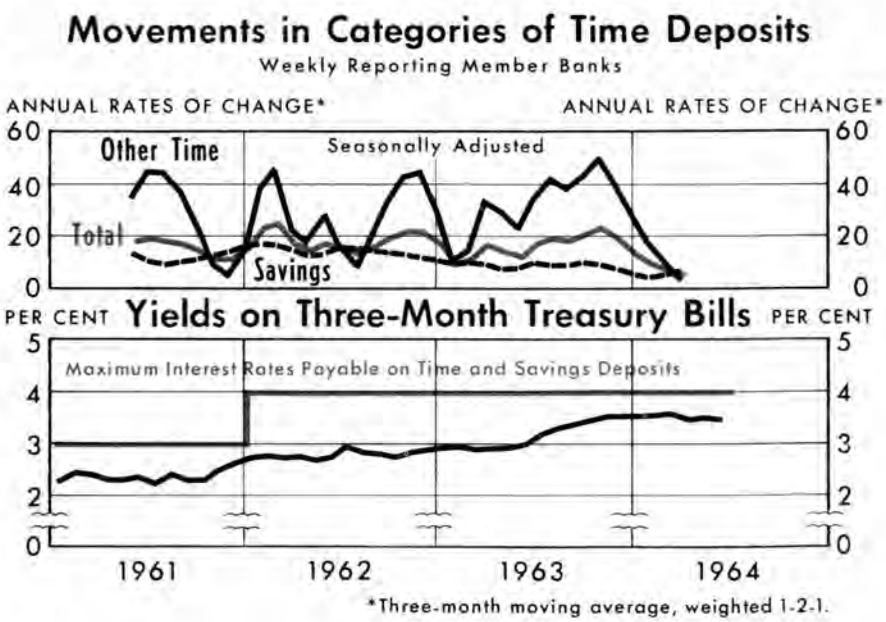


Table III

RATES OF INCREASE IN SELECTED COMPONENTS OF TIME DEPOSITS

(Per Cent Changes at Annual Rates)

	All Commercial Banks	Weekly Reporting Member Banks		
Periods	Total Time Deposits	Total Time Deposits	Savings	Others
April 1961-Dec. 1961..	12.4	16.7	11.9	29.8
Dec. 1961-May 1963..	18.0	19.0	14.0	31.0
May 1963-May 1964..	13.2	15.4	7.2	31.6

Late 1961 to Mid-1963

While there were sporadic increases in short-term market interest rates from late 1961 to mid-1963, interest rates did not rise as rapidly as had been usual in periods of recovery and expansion. In addition, in early 1962 there was a sharp rise in rates paid on time deposits, reflecting an upward revision in the maximum rates which banks were permitted to pay on time and savings deposits. As a result, commercial banks were able to continue to offer rates on certificates of deposit, and other time deposits, which were competitive with rates on short-term market instruments.

Rather than contracting as the expansion continued, the rate of increase of time and savings deposits was higher during the late 1961 to mid-1963 period than in the recession and early recovery. At all commercial banks these deposits rose at an annual rate of 18 per cent; at weekly reporting member banks there was a 19 per cent rate of increase (Table III).

The savings account segment of time deposits at weekly reporting banks expanded at a 14 per cent rate from late 1961 to mid-1963. Other time deposits rose at an average rate of 31 per cent per annum. These rates of increase were up slightly from the rates which had prevailed during 1961. By the end of 1962 CD's at weekly reporting banks accounted for 45 per cent of other time deposits.

Mid-1963 to the Present

Short-term interest rates rose about ½ of 1 per cent from mid-1963 to November and have since remained virtually unchanged. However, short-term market rates have not yet risen above the maximum rates

Time Deposits at Member Banks

TIME DEPOSITS at member banks totaled $91.3 billion at the end of 1963 compared with $80.1 billion in December 1962 and $67.5 billion in December 1961. Most rapid increases in total time deposits during this two-year period occurred in the category entitled "other time deposits of individuals, partnerships, and corporations." These "other" time deposits rose 67 per cent during 1962 and 38 per cent in 1963. Included in the other time deposits category are time certificates of deposit and time deposits, open account.

The most rapid increases in time deposits occurred in negotiable time certificates of deposit. These deposits rose from $3.2 billion in December 1961 to $6.2 billion in December 1962 and then reached $10 billion in December 1963.[1] These gains represent increases of 92 and 61 per cent in 1962 and 1963, respectively. As a proportion of total time deposits, the negotiable CD component rose from about 5 per cent in 1961 to 8 per cent in 1962 and to 11 per cent in 1963.

Savings accounts were $62.7 billion in December 1963, a 7.5 per cent gain over the late 1962 level. During 1962 savings deposits rose 12 per cent. The proportion of total time deposits accounted for by the savings component declined from 77 per cent in 1961 to 67 per cent in 1963. The relative shares of the remaining time deposit items remained virtually unchanged.

[1] See "Negotiable Time Certificates of Deposit" in the April 1963 issue of the *Federal Reserve Bulletin*, pp. 458-468.

	Dec. 30, 1961		Dec. 28, 1962		Dec. 20, 1963	
	Million $	Per cent of total	Million $	Per cent of total	Million $	Per cent of total
Total Time Deposits	**67,460**	**100.0**	**80,074**	**100.0**	**91,311**	**100.0**
Savings Deposits, IPC	51,985	77.1	58,296	72.8	62,666	68.6
Other Time Deposits, IPC	7,791	11.5	13,014	16.3	18,009	19.7
States and Political Subdivisions	4,371	6.5	5,152	6.4	6,364	7.0
Foreign Governments and Official Institutions	2,174	3.2	2,424	3.0	3,033	3.3
All Other[1]	1,139	1.7	1,182	1.5	1,239	1.4
Memo: Negotiable CD's[2]	3,223	4.8	6,181	7.7	9,920	10.9

[1] Includes accounts accumulated for payment of personal loans, domestic interbank deposits, postal savings, deposits of U. S. Government, and deposits of foreign commercial banks.

[2] Negotiable time certificates of deposit are defined as those certificates issued in a form which legally permits sale by the holder with no restrictions imposed by the issuing bank on resale. Negotiable CD's are not a separate category; rather, negotiable CD's are in all categories in the table except savings deposits. The figures shown for 1961 and 1962 are from surveys of 410 member banks (351 weekly reporting banks and selected additional banks which were believed to have an appreciable volume of negotiable CD's) on December 30, 1961 and December 5, 1962. The 1963 figure is from the weekly reporting member bank series; it is limited to negotiable CD's of $100,000 or more.

which banks are permitted to pay on time deposits. As a result, commercial banks have continued to issue negotiable CD's at rates which are competitive with the yields on comparable money market instruments. From May 1963 to May 1964 time deposits at commercial banks increased at a 13 per cent annual rate, down somewhat from the 18 per cent rate which had prevailed before the marked rise in short-term money market interest rates.

The moderation in the rate of increase in time deposits in recent months reflects chiefly a decline in the rate of increase in savings accounts. From May 1963 to May 1964 savings deposits at weekly reporting member banks increased at a 7 per cent annual rate. This may be compared with a 14 per cent rate from late 1961 to May 1963. As Chart 4 suggests, however, this decline in the rate of growth of savings has been gradual, having begun in mid-1962, and does not coincide with the abrupt rise in short-term market interest rates in mid-1963. One cause of the slowdown in the growth of these accounts may have been a rise in rates paid by mutual savings banks and other savings institutions.

Other time deposits, which include the CD component, rose at a 32 per cent annual rate from May 1963 to May 1964. However, since mid-1963, the annual rate of increase in these deposits has declined successively from the pace which had prevailed earlier. From September 1963 to May these deposits rose at a 27 per cent rate; since January 1964, the rate of growth has slowed to 9.5 per cent. During the three-and-one-half-year span since early 1961 there were other times when, for short periods, there was a slowdown in the rate of growth of other time deposits. However, the low rate of increase in the first five months of 1964 has been less than in any of these periods.

Summary and Conclusions

Time and savings deposits at commercial banks have maintained a rapid rate of increase during the period of economic expansion since early 1961. This rise has been a continuation of the pace achieved during the 1960-61 recession. In contrast, during the 1954-57 and 1958-60 periods of expansion the rate of growth in these deposits abated sharply from the rapid rates of increase which had occurred during the preceding recessions. Although the rapid rate of time deposit growth since 1961 appears to be at variance with earlier cyclical patterns, the behavioral relationships which help explain these earlier episodes are also useful in accounting for the more recent time deposit experience.

A review of movements in time deposits since 1951 suggests a strong relationship between the rate of increase in time deposits and the spread between rates paid on time deposits and yields on short-term market instruments. During periods of expansion since 1951 when short-term market rates have risen above maximum permissible rates on time deposits, banks have been estopped from offering time deposit rates which are competitive with yields on alternative market instruments. Hence, the rate of increase in time deposits has tended to decline.

Experience since 1961 is consistent with this interpretation. An enigmatic feature of the current recovery has been the failure of market interest rates to rise in a manner which had characterized other periods of recovery and expansion. Coupled with the lack of buoyancy in interest rates, there have been periodic increases since the beginning of 1962 in ceilings on various maturities of time deposit rates (Table II). Thus, throughout the period commercial banks have been able to compete effectively for short-term money with such alternative liquid-asset media as Treasury bills. Finally, the development of the secondary market since 1961 has greatly enhanced the attractiveness of CD's, having made them more nearly comparable with other short-term money market instruments.

William R. Bryan

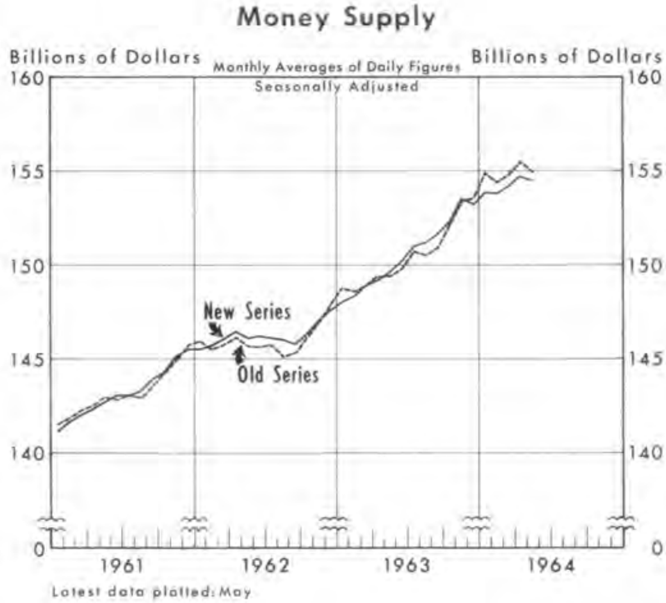
Revision of the Money Supply Series

THE DAILY-AVERAGE SERIES for the money supply has been revised. Semi-monthly and monthly data for the new series, beginning with January 1947, are published in the *Federal Reserve Bulletin* for June. Current figures will be published in the *Federal Reserve Bulletin* and the Board's J. 3 release on "Demand Deposits, Currency, and Related Items."[1]

As defined for the purposes of this series, the money supply consists of (1) demand deposits at all commercial banks, other than those due to domestic commercial banks and the U.S. Government, less cash items in process of collection and Federal Reserve float; (2) foreign demand balances at Federal Reserve Banks; and (3) currency outside the Treasury, the Federal Reserve System, and the commercial banks.

Changes in this series, as just now made available, have resulted from adjustments to new benchmark data for nonmember banks now available for 1962 and 1963 and from revision of seasonal factors for the period 1955 to date. The largest revisions in the money supply apply to the period beginning with mid-1960. They affect for the most part the pattern of growth within the year. Since 1960, the revised series is smoother than the old series, and the rate of growth is steadier. Over a full year the rate of expansion is roughly the same for both the old and the new series —about 3.7 per cent in 1963. Over a period of several months, however, there may be significant differences. For example, from November last year to January this year the money supply as measured by the new seasonally adjusted series rose at an annual rate of 1.2 per cent compared with a 5.5 per cent rate by the old.

Revisions based on the new benchmarks raised the unadjusted figures for the money supply for the months of February through August for both 1962 and



1963. The revisions based on changes in seasonal factors lowered the seasonally adjusted series for the months of December through May and raised it for the months of June through November.[2]

In addition, there have been slight changes in the time deposits series and in the series on U.S. Government demand deposits in commercial banks. These data are also contained in the June *Bulletin*.

The seasonally adjusted series for bank credit and its major components have also been revised to incorporate new seasonal factors. No changes were required in the unadjusted data. Seasonally adjusted and unadjusted data for the period 1948 to date, together with seasonal factors for 1964, are presented in the June *Federal Reserve Bulletin*.

[1] This bank publishes a semi-monthly release on rates of change in money which may be obtained by writing the Research Department.

[2] For a discussion of the changed seasonal patterns in money and other financial indicators, see this *Review* for April 1964, pp. 3 and 4.

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