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FEDERAL RESERVE BANK OF ST. LOUIS Review

Page

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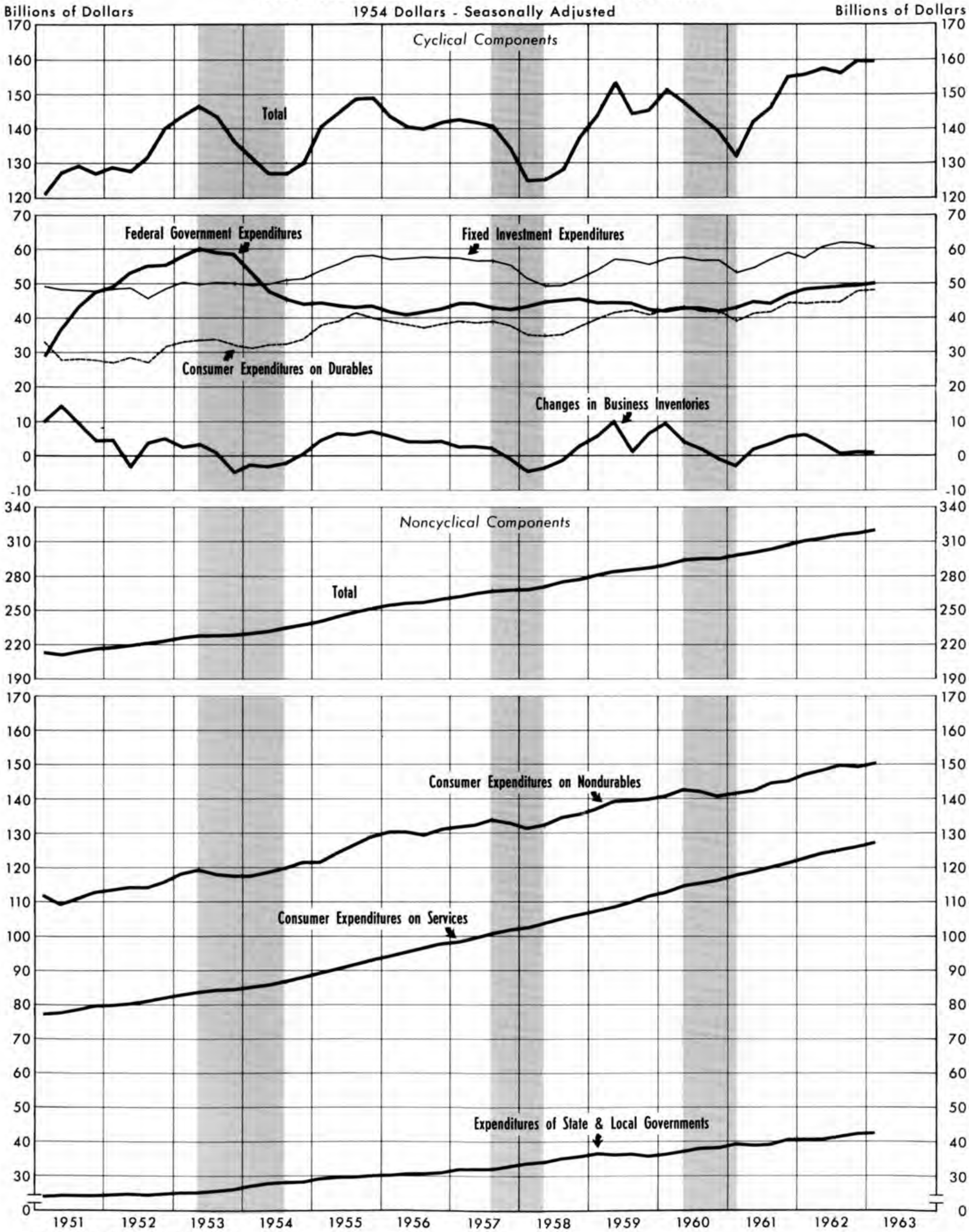
FEDERAL RESERVE BANK OF ST. LOUIS
P. O. Box 442 • St. Louis 66, Mo.

Chart 1

Gross National Product - Selected Components

1954 Dollars - Seasonally Adjusted



Latest data plotted: 1st quarter 1963

The Plateau in Business Activity

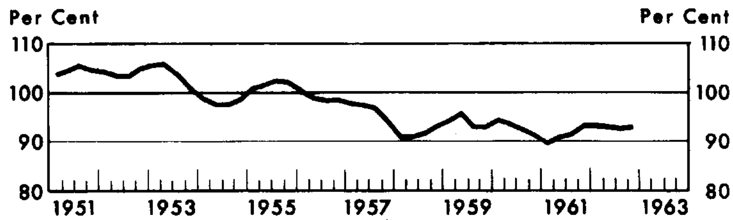
THE ECONOMY has been characterized as having been on a plateau since mid-1962. Whether the word "plateau" is the most appropriate description of the economy depends on the nature and scope of the analysis employed in studying the data. Real output of the economy, i.e., gross national product measured in constant dollars, increased at an annual rate of about 3 per cent from the second quarter of 1962 to the first quarter of this year. On the surface this increase does not seem descriptive of a "plateau." In order to give meaning to the term it is instructive to look somewhat deeper into the performance of the economy.

One approach is to analyze those dynamic segments of our economy which are the chief source of cyclical variation in activity. Consumer expenditures on durables and business spending on inventories and fixed investment typically vary substantially in the course of a business cycle (upper tier, Chart 1, page 2). Expenditures by the Federal Government on goods and services are also of a dynamic character. These expenditures tend to vary in a countercyclical manner. The total of these components has risen at an annual rate of 2 per cent since the second quarter of last year, considerably less than the 8.5 per cent average rate of increase for periods of business expansion during the 1951-62 period. In contrast, a large number of GNP components—such as consumer spending on services and nondurables, and spending of state and local governments—tend to move upward at a rather steady rate quarter after quarter. The sum of these components, which accounts for about two-thirds of total GNP, also rose at an annual rate of 3 per cent from the second quarter of 1962 to the first quarter of 1963. This rate of increase may be compared with an average rate of 3.9 per cent for periods of business expansion in the 1951-62 period.

The impression of a plateau emerges more vividly in comparing the actual performance of the economy with measures of its potential performance.[1] Since mid-1962, actual GNP (in constant dollars) has remained about 7 per cent below what might have been achieved if resources had been more fully utilized (Chart 2).

Chart 2

Actual GNP as a Per Cent of Potential GNP



Source: Department of Commerce and the Staff of the Economic Committee
Latest data plotted: 4th quarter 1962

Thus, it appears that the term "plateau" describes a situation in which the dynamic factors in the economy are no longer demonstrating buoyancy, a situation in which the economy is not moving toward the level of activity of which it is capable. It is within this context that the term "plateau" may describe the performance of the economy since mid-1962.

Productive Activity

The general stability in the economy is reflected prominently in the index of industrial production, a measure of the output of the nation's mines, factories, and utilities. Since August of 1962, output has increased only fractionally, at a 1 per cent annual rate. Since the beginning of this year, however, the rate of increase has quickened.

Although total industrial output has been relatively stable since mid-1962, there have been substantial shifts in its composition. Production for consumers, especially of household goods, appliances, and other durables, has risen markedly since November of last year (see Chart 3). During this same period output of business equipment has declined. Output of materials drifted downward from the fall of 1962 to January and then rose sharply through March.

Construction, particularly in the private sector, has declined sharply in recent months. From June 1962 to January of this year outlays on new construction hovered about the $62.6 billion level. From January

[1] For a study of the problem of measuring potential growth see: James W. Knowles and Charles B. Warden, Jr., *The Potential Economic Growth in the United States,* Joint Economic Committee, Congress of the United States, 1960.

Chart 3

Industrial Production

Latest data plotted: March preliminary

to March, the annual rate of expenditures declined $1.8 billion, to a level 3 per cent below the earlier plateau. Residential construction, which has shown considerable weakness since the middle of last year, declined 2.4 per cent from January to March. Housing starts during the early months of this year have averaged about 1,250 thousand units (at seasonally adjusted annual rates); this represents a sharp decline from the March-November 1962 pace when housing starts averaged just less than 1,500 thousand units.

Employment—Unemployment

There were 68.6 million persons employed in mid-March of this year, 550 thousand above the seasonally adjusted February level. Employment had fluctuated within a narrow range from February 1962 to February of this year, increasing less than 1 per cent on balance. With the inclusion of March, however, the rate of increase is 1.5 per cent. The proportion of the civilian labor force unemployed, which fluctuated near the 5.5 per cent level during the spring of 1962, and averaged nearly 6 percent in January and February of this year, returned to a 5.6 per cent rate in mid-March (Chart 4).

The relatively high level of unemployment has been accompanied by increases in other measures of joblessness. Man-hours lost to the economy because of unemployment and economic part-time employment (expressed as a proportion of total potentially available man-hours) held stable at 6.6 per cent in the spring of 1962, began edging upward in the summer and fall, and reached 7.1 per cent in February of this year.[2] In mid-March the rate declined to 6.6 per cent. The length of the average workweek in manufacturing has edged downward from the levels prevailing in the spring of 1962. During the second quarter of last year the average workweek was 40.6 hours; during the first quarter of this year it averaged 40.3 hours.

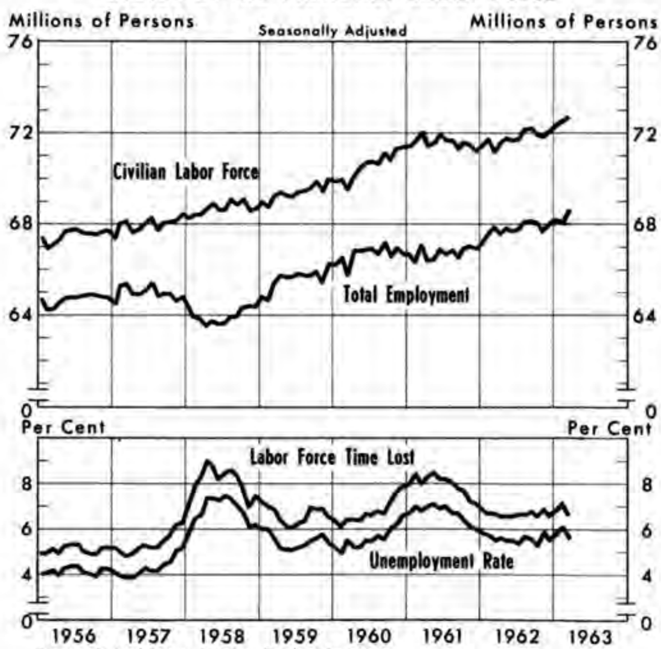
Consumer Income and Spending

Reflecting the stability in productive activity and employment, payments to wage and salary workers were about unchanged during the summer of 1962 and have increased only moderately since last fall. Total personal income increased at a moderate pace last fall and has been virtually unchanged on balance since December.[3] Retail sales were approximately unchanged on balance from July to October, increased sharply in November, and then rose moderately from November to March 1963.

To a considerable degree consumer spending has been maintained by an increase in consumer credit. Since spring of last year outstanding instalment credit has risen at a 12.2 per cent annual rate. As Chart 5 shows, instalment credit has increased rapidly in other periods during the past 12 years, usually during periods of business expansion. The most recent rise is about the same as the 1959-60, 1955-57 increases, but

Chart 4

Status of the National Labor Force



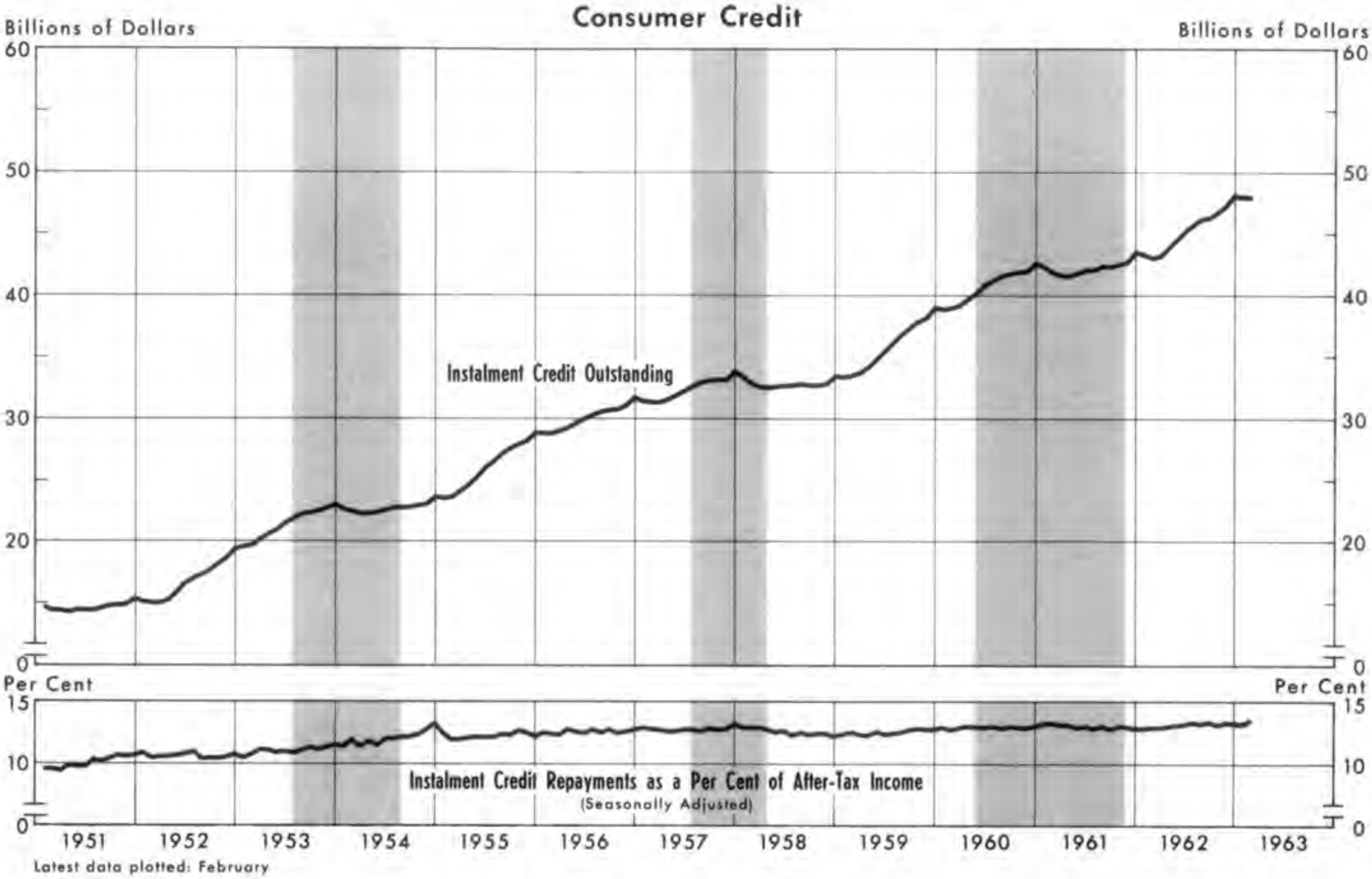
Source: United States Bureau of Labor Statistics
Latest data plotted: March preliminary

[2]Potentially available man-hours is the sum of actual hours worked, hours lost by those with a job but not working (assuming a 37.5 hours workweek), hours lost by the unemployed (assuming a 37.5 hours workweek), and hours lost by those working part-time for economic reasons (lost time being the difference between 37.5 hours and actual number of hours worked).

[3]Total income includes wage and salary payments; dividend and interest payments; business, professional, and rental income; farm proprietors' income; and transfer payments.

Chart 5

Consumer Credit



considerably smaller than the 1952-53 experience, as shown by the table below.

Periods of Rapid Increase in Consumer Credit

	Average Annual Rate of Increase
March 1962—February 1963	12.2
February 1959—December 1960	14.9
February 1955—December 1957	15.2
March 1952—December 1953	30.3

One way to view developments in consumer credit is to relate the repayments burden to some measure of income. It appears as if people are now using about the same portion of their after-tax income to make instalment payments as they did last year (Chart 6). Indeed, there has been little change in this percentage for the past eight years.

Business Income and Spending

Preliminary estimates of corporate profits (after taxes) for the year 1962, at $26 billion, show an increase of 21 per cent from 1961. However, the estimates also indicate that corporate profits during the final quarter of 1962 were little changed from the level which has prevailed since the final quarter of 1961.

Because of the relative stability in sales and orders since the spring of 1962, manufacturers appear to have shown little disposition to add to their inventories (see Chart 6). Should activity turn up in the near

Chart 6

Sales, Inventories and Orders

Manufacturers'

future the inventory situation might provide a factor in business expansion; current inventory levels could prove inadequate to meet an expanding volume of production and sales. On the other hand, if activity should turn down, the inventory situation may not be exceptionally vulnerable.

Plant and equipment expenditures in 1962 were 8.6 per cent above the 1961 level. Since mid-1962, however, business spending on new plant and equipment has been cautious. During the fourth quarter of 1962 these expenditures, just under $38 billion, were down fractionally from the previous quarter and are estimated to have continued at about this same level during the first quarter of 1963.

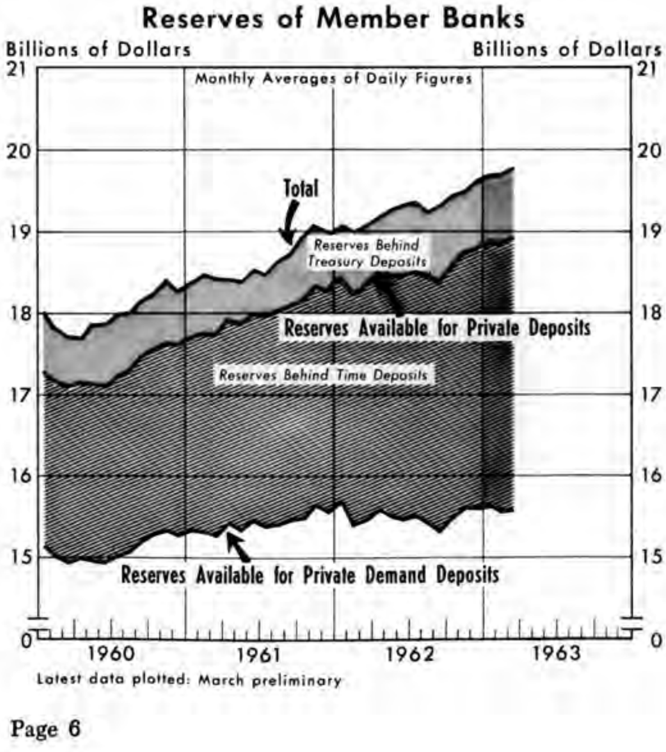
The cost of long-term borrowing has edged downward during much of the 1961-63 period of business expansion. During other periods of expansion over the past twelve years, long-term interest rates rose markedly. Despite the fact that rates have declined for more than a year and a half, the current level of rates remains higher than the levels which prevailed during most of the past decade. High interest rates are generally considered to be a depressant to investment, but other factors are also important. There is a view that business investment may be stimulated, at least in the short-run, by expectations of a rising price level. To the extent that expectations of a rising price level have been dampened during recent years, any given cost of borrowed capital may have become a more inhibiting factor in investment decisions.

Monetary Developments

Member bank reserves available to support all private deposits (i.e., total reserves less reserves behind Treasury deposits) increased at an annual rate of 1.1 per cent from January to March. Over the past year these reserves increased 3.1 per cent (Chart 7). Reserves available to support private demand deposits (i.e., total reserves less reserves behind Treasury deposits and time deposits) declined at a 2.5 per cent annual rate from January to March. These reserves have expanded at a 0.6 per cent rate since March last year.

Chart 7

Reserves of Member Banks



Latest data plotted: March preliminary

Excess reserves, which normally increase during the early months of the year, have drifted downward since February (Chart 8).[4] Excess reserves averaged

Chart 8

Excess Reserves & Borrowings of Member Banks

Latest data plotted: March preliminary

$443 million in March and remained near this level in early April. This was about $26 million below the average level of late January and February and about $140 million below the last two months of 1962. Borrowings averaged $155 million in March, slightly higher than earlier this year, and about $50 million above the average level during 1962. In early April borrowing averaged about $90 million.

Total bank credit increased at an annual rate of 12.8 per cent in the first quarter. Both loans and investments rose during the period. The money supply (demand deposits plus currency), seasonally adjusted, increased $200 million from January to March, or at an annual rate of 0.8 per cent. From March 1962 to March 1963, the money supply has increased 2.2 per cent.

Continued on page 10

[4]See p. 11 this *Review*.

Earnings and Expenses of Eighth District Member Banks

NET EARNINGS of member banks in the Eighth Federal Reserve District were virtually the same in 1962 as in 1961. A large increase in total expenses was matched by a nearly equal rise in total earnings, leaving net earnings about unchanged.

Rapid Increase in Both Expenses and Earnings

Expenses—Total expenses of member banks in the district were 12 per cent higher in 1962 than in 1961, continuing the postwar rise (Chart 1 and Table I). An increase in interest paid on time and savings deposits constituted the largest rise in any major expense item in 1962 as in each of the past six years. Salaries

Chart 1

Earnings and Expenses

Eighth District Member Banks

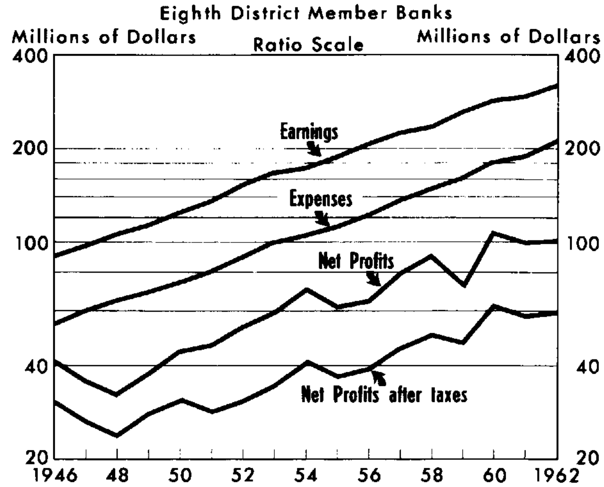


TABLE I

Earnings and Expenses of Eighth District Member Banks

(In millions of dollars)

	1962	1961	1960	Percentage Change 1961-1962	Percentage Change 1960-1961
Interest and discounts on loans	$ 200.6	$ 187.0	$ 181.6	+ 7.3%	+ 3.0%
Interest on securities					
a. U.S. Government	64.7	60.4	57.0	+ 7.1	+ 6.0
b. Other	19.5	16.7	16.1	+ 16.8	+ 3.7
Service charges on deposits	13.9	13.1	12.5	+ 6.1	+ 4.8
Other earnings	21.2	20.3	22.0	+ 4.4	— 7.7
Total earnings	**$319.9**	**$297.4**	**$289.2**	**+ 7.6**	**+ 2.8**
Salaries and wages	78.5	75.5	73.8	+ 4.0	+ 2.3
Interest on time deposits	61.2	46.4	38.2	+ 31.9	+ 21.5
Other expenses	73.5	68.7	68.2	+ 7.0	+ 0.7
Total expenses	**$213.2**	**$190.6**	**$180.2**	**+11.9**	**+ 5.8**
Net earnings	**$106.7**	**$106.8**	**$109.0**	**— 0.1**	**— 2.0**
Net recoveries and profits (+), losses (—):					
a. On securities	+ 5.3	+3.4	+7.4	+ 55.9	— 54.1
b. On loans	—10.1	—8.5	—6.9	+ 18.8	+ 23.2
c. Others	— 1.3	—1.8	—1.7	— 27.8	+ 5.9
Total net recoveries and profits	— 6.1	—6.9	—1.3	— 11.6	+ 430.8
Net profits	**$100.5**	**$ 99.9**	**$107.8**	**+ 0.6**	**— 7.3**
Taxes on net profits	41.2	42.1	46.0	— 2.1	— 8.5
Net profits after taxes	**59.4**	**57.8**	**61.8**	**+ 2.8**	**— 6.5**
Cash dividends on common stock	$ 25.0	$ 23.9	$ 24.0	+ 4.6	— 0.4
Net retained earnings	$ 34.4	$ 33.9	$ 37.8	+ 1.5	— 10.3

Note: Detail may not add to totals due to rounding.

and wages and other current expenses also increased from 1961 to 1962.

The amount of interest paid on time and savings deposits rose 32 per cent from 1961 to 1962 compared with a 22 per cent rise in the previous year and an average annual increase of 23 per cent from 1956 to 1960. The substantial rise in interest payments reflected a continuation of the secular increase in the average rate paid on time and savings deposits and a rapid growth in volume (see Chart 2).

Effective January 1, 1962, the Board of Governors of the Federal Reserve System amended Regulation Q by increasing the maximum allowable rate from 3 per cent on all savings deposits to 4 per cent on savings that remain on deposit 12 months or more and to 3½ per cent on all other savings deposits (see Table II). The maximum permissible rates of interest paid on time deposits with maturities of 12 months or more was raised to 4 per cent and on those with maturities of more than 6 months but less than 12 months to 3½ per cent.

Table II

Maximum Interest Rates Payable on Time and Savings Deposits[1]

(Per cent per annum)

Time Deposit	Effective Date Jan. 1 1936	Jan. 1 1957	Jan. 1 1962
Savings deposits held for:			
1 year or more	2½	3	4
Less than 1 year			3½
Other time deposits payable in:			
1 year or more	2½	3	4
6 months - 1 year			3½
90 days - 6 months	2	2½	2½
Less than 90 days	1	1	1

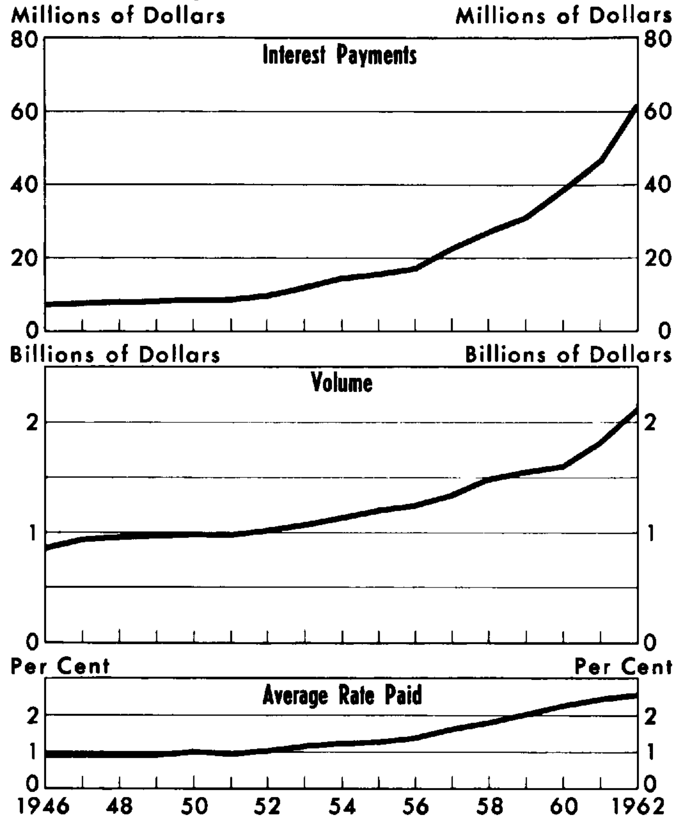
1 Beginning October 15, 1962, time deposits of foreign governments and certain foreign institutions have been exempt from regulation as to the maximum rates of interest which banks may pay on these deposits.

Most district member banks increased their rates on time or savings deposits.[1] Some banks moved to the new maximum on all or a portion of the categories of deposits while others made increases short of the permitted maxima. The average rate paid on time

Chart 2

Time Deposits

Eighth District Member Banks



and savings deposits increased .14 of one percentage point, from 2.41 per cent in 1961 to 2.55 per cent in 1962. This rise in the average rate paid on time and savings deposits was about the same as the previous year's increase of .15 of one percentage point, from 2.26 per cent in 1960 to 2.41 per cent in 1961 (see Chart 2).

The public responded to the higher rates paid on time and savings deposits in much the same manner as to the lower interest rates in the previous year. These deposits increased 16 per cent from 1961 to 1962 compared with a 13 per cent increase from 1960 to 1961. Time and savings deposits as a per cent of total deposits have risen markedly in the postwar period. They constituted 19.6 per cent of total deposits in 1946, 22.7 per cent in 1951, 24.3 per cent in 1956, 30.9 per cent in 1961, and 32.9 per cent in 1962.[2]

Salaries and wages of district member banks rose 4 per cent from 1961 to 1962. Other expenses, which

[1] See "Interest Rates on Time Deposits, Mid-January 1962," *Federal Reserve Bulletin*, February 1962, and "Changes in Rates on Time Deposits at District Banks," in the March 1963 *Review* of this bank.

[2] For a discussion of changes in the rate of growth of time deposits see: "Movements in Time and Savings Deposits 1951-1962," in the March 1963 issue of this *Review*.

include such items as advertising, depreciation, and local taxes, increased 7 per cent. Total expenses in 1962 were equal to 2.86 per cent of assets compared with 2.77 per cent in 1961, 2.05 per cent in 1956, 1.64 per cent in 1951, and 1.20 per cent in 1946.

Earnings—Total earnings of district member banks increased about 8 per cent. This rise reflected largely the increase in earning assets, but it also reflected a somewhat higher return on them. The growth in time and savings deposits went into higher yielding assets in which these deposits are traditionally invested. The ratio of total earnings to total assets increased from 4.01 per cent in 1961 to 4.09 per cent last year. Most of the gain resulted from a rise in the amount of interest and discounts received on loans. During 1962, outstanding loans averaged 10 per cent more than the previous year, and the return on these loans averaged 6.37 per cent compared with 6.31 per cent (see Chart 3).

Chart 3

Yields on Earning Assets

Eighth District Member Banks

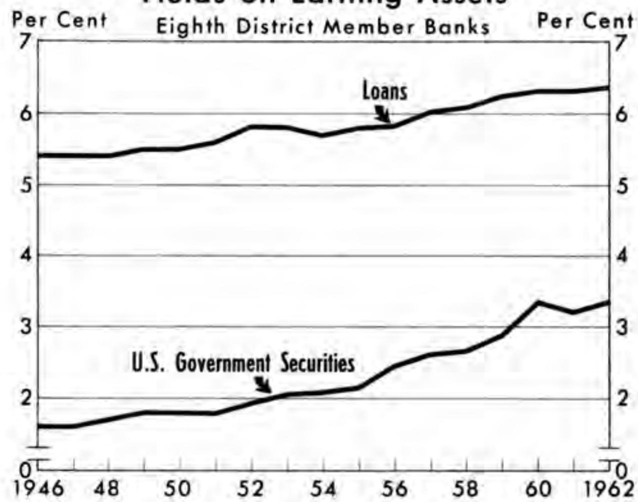


TABLE III

Selected Operating Ratios of Eighth District Member Banks

(In per cent)[1]

Banks Grouped according to Average Deposits (In millions of dollars)

	Up to $3		$3 - $25		$25 and Over		All Member Banks	
	1962	1961	1962	1961	1962	1961	1962	1961
Net earnings to capital	11.8	12.3	14.3	14.0	15.2	16.6	13.7	13.7
Net profits (after taxes) to capital	7.8	7.7	9.1	8.8	8.5	9.0	8.7	8.5
Cash dividends to capital	2.6	2.6	3.1	3.2	3.7	3.9	3.0	3.0
Total earnings to total assets	3.97	3.95	4.14	4.05	4.10	4.06	4.09	4.01
Total expenses to total assets	2.72	2.66	2.93	2.85	2.84	2.69	2.86	2.77
Net earnings to total assets	1.25	1.29	1.21	1.20	1.26	1.37	1.23	1.24
Net profits (after taxes) to total assets	0.83	0.82	0.77	0.74	0.71	0.74	0.78	0.77
Interest on U. S. Government securities (Chart 3)	3.36	3.27	3.35	3.22	3.21	2.99	3.34	3.21
Interest and dividends on other securities	3.31	3.47	3.05	3.07	3.11	3.27	3.13	3.21
Earnings on loans (Chart 3)	6.51	6.43	6.39	6.30	5.88	5.90	6.37	6.31
Capital to total assets	10.8	10.9	8.6	8.7	8.2	8.3	9.2	9.3
Time to total deposits	29.5	27.5	34.7	32.9	30.8	29.4	32.9	30.9
Interest paid to time deposits	2.34	2.31	2.56	2.43	3.12	2.60	2.55	2.41
U. S. Government securities to total assets	36.2	36.0	31.2	31.6	25.2	26.4	32.0	32.5
Other securities to total assets	7.2	7.2	11.0	10.9	8.6	7.4	9.7	9.5
Loans to total assets	35.5	35.9	38.1	37.7	44.3	44.4	38.0	37.7
Cash assets to total assets	20.2	20.0	18.3	18.4	20.2	20.1	19.0	19.0
Number of banks	127	149	302	286	43	42	472	477

[1] A more detailed breakdown of member bank operating ratios is available in the report: "Member Bank Operating Ratios." This report will be furnished upon request to the Research Department, Federal Reserve Bank of St. Louis.

The higher average returns on loans reflect the increase in the volume of consumer loans and real estate and other longer term loans relative to total loans. Such loans generally earn a higher return than loans with shorter maturities. With the rise in time and savings deposits, bank liabilities are thought to be more stable, reducing somewhat the need for liquidity.

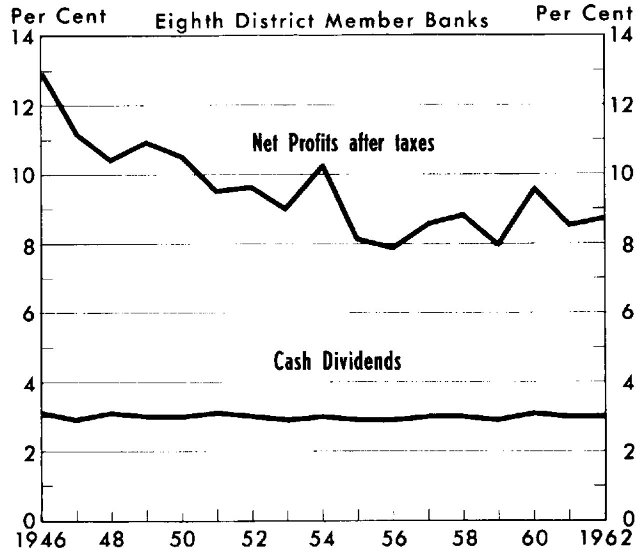
Interest on securities increased 9 per cent from 1961 to 1962, with incomes from both Government and other securities rising. The increased return was due to an increase in bank holdings of securities, a rise in some rates, and a lengthening of the average maturity of bank investment portfolios. Increased holdings of long-term Government and state and local bonds, which are less liquid than shorter term securities, reflect, in part, the growth of time and savings deposits.

Profits Up Slightly

Reflecting the almost equal increases in total expenses and total earnings, net earnings of district member banks were practically the same in 1962 as in the previous year (see Table I). Larger net losses on loans were more than offset by bigger capital gains on security transactions, and net profits were a little larger than in 1961. Nevertheless, income taxes were about 2 per cent less in 1962 than in 1961, reflecting, in part, the increased holdings of tax exempt municipal securities. Net profits after taxes increased 3 per cent from 1961 to 1962, and relative to total capital accounts net profits increased from 8.5 per cent to 8.7 per cent (see Chart 4). The ratio of cash dividends to capital remained unchanged at 3.0 per cent; both the amount of dividends paid to stockholders and capital invested increased over the 1961 level. Earnings retained to strengthen capital structures were 1.5 per cent greater during 1962 than in 1961 and amounted to 5.7 per cent of capital accounts in 1962.

Chart 4

Ratios of Profits and Dividends to Capital



The Plateau in Business Activity—*Continued from page 6*

Stock Market Developments

Although stock prices changed little during the first quarter of 1963, the rise from mid-1962 was relatively steep. Standard and Poor's composite index of 500 stocks averaged 55.63 in June 1962, climbed to an average of 65.06 in January 1963, and remained near that level through March. The March level of 65.67 compares with a level of 70.29 in March 1962. Since the end of March, stock prices have moved upward, averaging 67.91 in the first two weeks of April. Since rising stock prices either may provide realized profits or may add to a holder's feeling of wealth, these increases tend to stimulate spending and have been considered by some as a stimulus both to consumption and investment.

Excess Reserves

Why Banks Hold Excess Reserves

COMMERCIAL BANKS are required by law and custom to hold as reserves an amount of uninvested funds equal to a portion of their deposits. For member banks in the Federal Reserve System, these reserves must be either cash in vault or deposits in their Reserve Bank.[1] Historically, reserve requirements were imposed to assure that banks maintain a cash fund to meet temporary drains caused by depositor withdrawals. Other methods, such as Reserve Bank credit, have been developed to provide banks with temporary liquidity, but bank reserve requirements have been retained as a method of influencing the volume of bank credit and money.[2]

Banks generally do not find it practical to hold exactly the prescribed amount of reserves. Reserves held beyond those legally needed for existing deposits are called excess reserves. Both reserve balances and deposits of banks are subject to daily inflows and outflows, and banks attempt to avoid reserve deficiencies. Hence, banks generally find at the end of a reserve computation period (one week in the case of the reserve city banks and two weeks in the case of other member banks) that their daily average of actual reserves has exceeded their daily average of required reserves, i.e., they have had excess reserves.

Bank Management of Reserves

Since excess reserves are nonearning assets, each individual bank has an incentive to keep them at a practical minimum in view of all pertinent circumstances. A bank must continuously manage its reserve balance to avoid shortages on the one hand and to avoid loss of earnings by leaving funds uninvested on the other. As a result, monthly average total and required reserves of member banks have, in general, moved together as can be seen in Chart 1, covering the period since 1951.

[1] Reserve requirements at present for member banks are 16½ per cent of net demand deposits in reserve city banks, 12 per cent of net demand deposits in other banks, and 4 per cent of all time deposits.

[2] See: *The Federal Reserve System: Purposes and Functions,* Board of Governors of the Federal Reserve System, Washington, D. C., Chapter II.

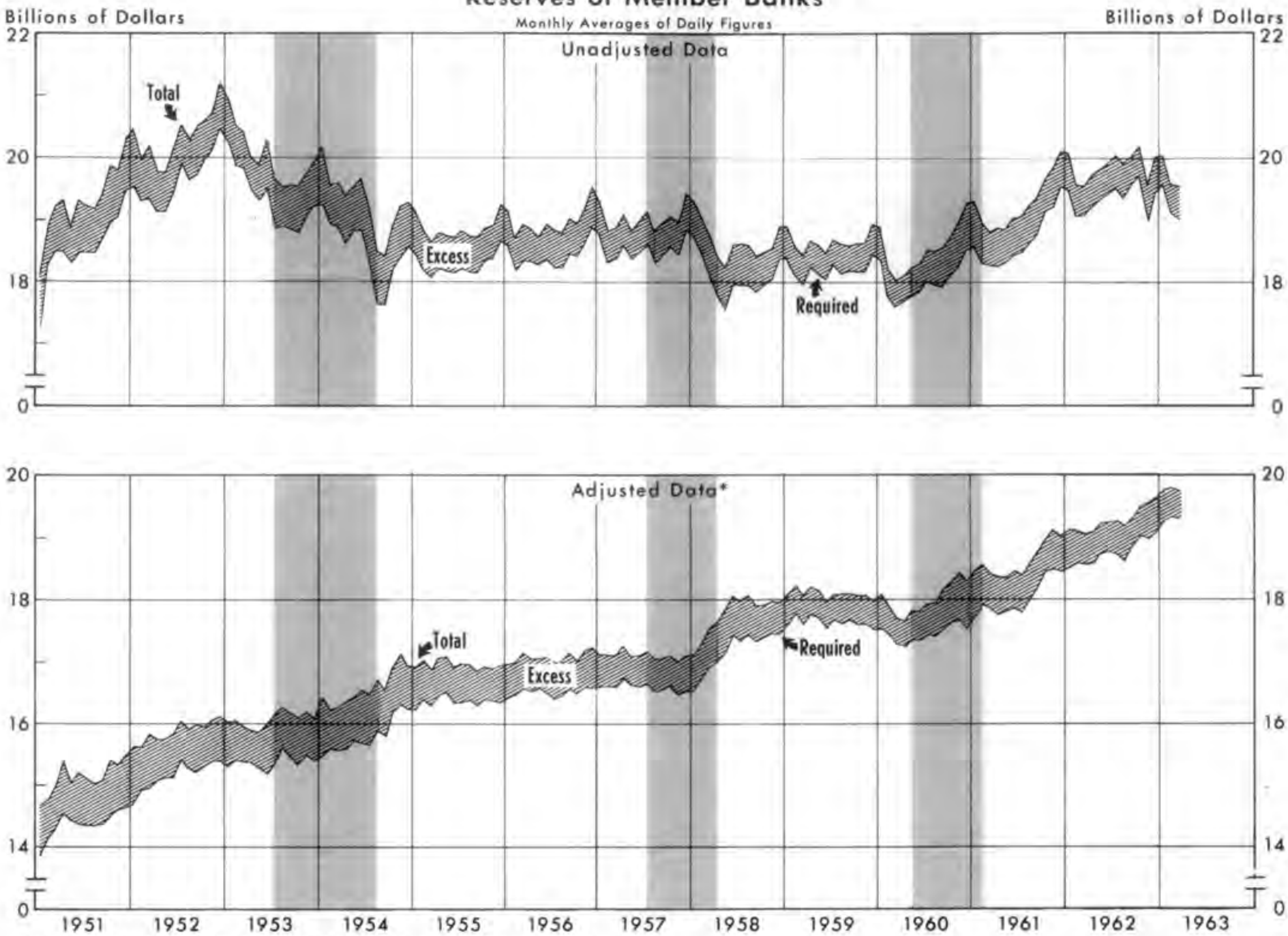
A bank has several means of changing its assets and liabilities to minimize excess reserves. If a bank has redundant funds, it can expand loans, buy securities, or reduce indebtedness. Conversely, by selling securities, reducing loans, or borrowing funds, a bank can replenish its reserves. Banks are constantly adjusting their assets and indebtedness to keep their nonearning excess reserves at a practical working minimum.

Since the deposits of a bank fluctuate widely and unpredictably from day to day and week to week, both reserve balances and required reserves fluctuate greatly. Only by meticulous daily study of its reserve balances and requirements and skillful adjustment of its assets and liabilities can a bank achieve close correspondence between reserve period averages of required and actual reserves. Movements of funds from one bank to another cause huge gains and losses for individual banks, but cancel out for the banking system as a whole. Many transactions, however, produce movements in excess reserves for both individual banks and the entire banking system. Factors which affect the volume of total reserves, such as flows of gold, currency movements into and out of banks, changes in Treasury cash balances at Reserve Banks, and System open market purchases and sales, cause changes in the level of excess reserves. Also, fluctuations in the volume of required reserves (caused by changes in bank credit and deposits) result in movements in the level of excess reserves both for an individual bank and the banking system as a whole.

Despite the many forces causing daily fluctuations in excess reserves of all banks combined, offsetting movements plus continuous bank management of reserve balances reduce greatly the monthly average fluctuations of excess reserves (see Charts 1 and 2). In the past two years, the average movement from month to month in excess reserves has been $85 million, compared with an average daily fluctuation of $250 million.

Some banks are more efficient at keeping excess reserves at a minimum than others. Large banks, because of the volume of funds involved, usually find it more expedient to watch closely their reserve balances

Chart 1
Reserves of Member Banks
Monthly Averages of Daily Figures



*Adjusted for seasonal fluctuations and for changes in reserve requirements.
Shaded periods of time represent economic recessions.
Latest data plotted: March preliminary

than do small banks. The largest money market banks are able to maintain nominal excess reserve balances. During 1962 excess reserves of the reserve city banks (larger banks) averaged about ½ of 1 per cent of required reserves while excess reserves of other member banks averaged 7 per cent of required reserves.

Even among banks of similar size, there are differences in the amounts of excess reserves typically held. These variations may reflect differences in deposit stability, in loan demands, in accounting systems, in bank attitudes toward borrowing, in size of correspondent bank deposits, in amount of effort devoted to minimizing excess reserves, and in aggressiveness of management.

Trend and Cyclical Movements in Excess Reserves

Excess reserves have trended downward during the past twelve years. During 1951 excess reserves of all member banks averaged $760 million, of which reserve city banks accounted for $210 million and other banks accounted for $550 million. In the first quarter of 1963 excess reserves averaged $460 million for all member banks, $40 million for reserve city banks, and $420 million for other banks. In 1951, excess reserves averaged 4.1 per cent of required reserves. In early 1963, excess reserves averaged 2.5 per cent of required reserves.

This secular decrease of excess reserves over the past dozen years has been the result of many factors. One major factor may have been the rise in interest rates (Chart 3). By holding excess reserves a bank sacrifices returns available on interest-bearing assets. Thus, the cost of holding excess reserves varies directly with changes in interest rates. From 1952 to 1962 over half of the variations in excess reserves were associated with variations in short-term rates.[3]

[3] Fluctuations in monthly averages of daily excess reserves and three-month Treasury bill rates had a correlation coefficient of —.73.

Chart 2

Excess Reserves

by Class of Bank

Monthly Averages of Daily Figures

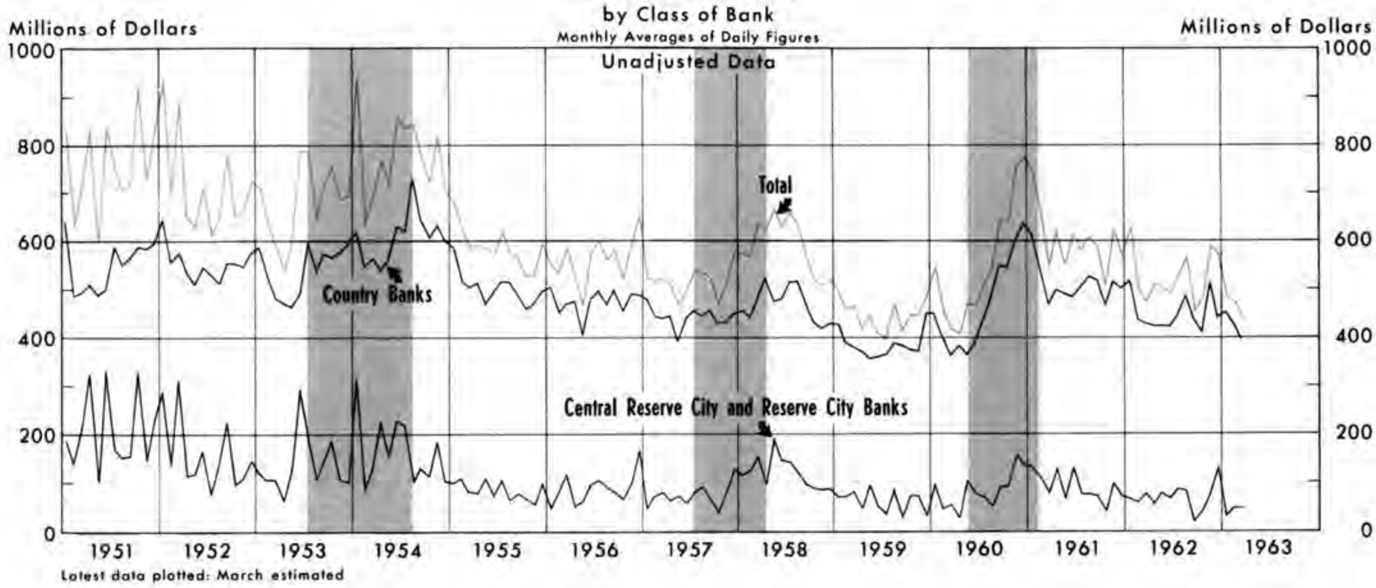
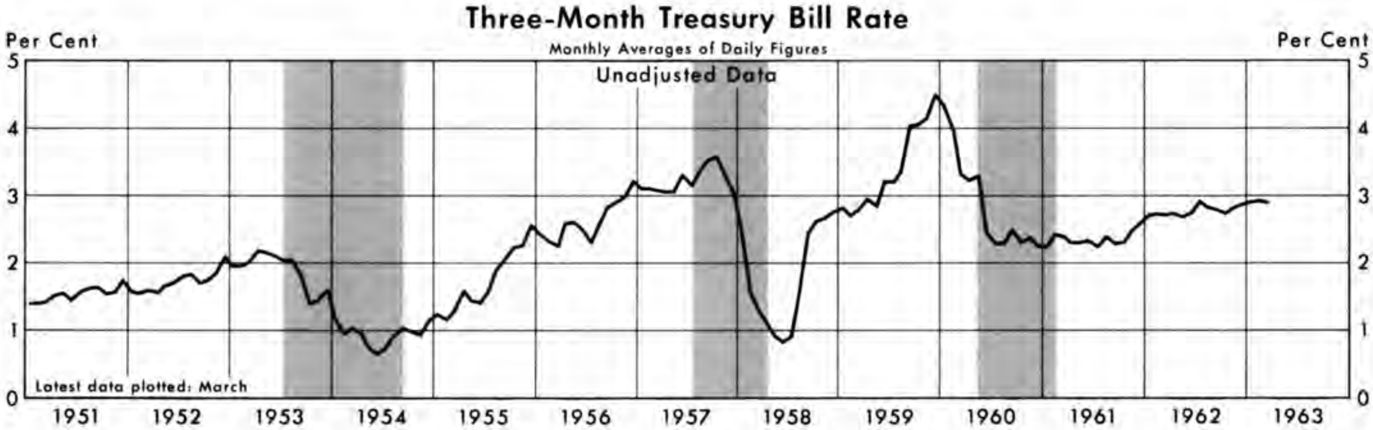


Chart 3

Three-Month Treasury Bill Rate

Monthly Averages of Daily Figures



The development of the Federal funds market probably has contributed to the secular reduction in excess reserves. This market permits larger banks which otherwise would have excess reserves to lend funds on a day-to-day basis to other large banks that otherwise would be temporarily deficient in reserves. This means of utilizing redundant funds enables banks to dispose of what might otherwise be excess reserves. Also, with this additional access to reserve funds, banks may hold smaller amounts of precautionary reserves.

The growth in the size of banks from 1951 to 1962, as the economy has expanded and as banks have merged and established branches, may have tended to reduce the volume of excess reserves. In 1951 the average deposit holdings of member banks amounted to \$16 million; 184 member banks held deposits of \$100 million or more. By 1962, the average deposit holdings more than doubled to reach \$35 million, and 288 member banks held deposits of \$100 million or more. As mentioned earlier, bigger banks generally hold a smaller proportion of excess to total reserves than do the smaller banks.

Cyclical movements of excess reserves have been in a magnitude of \$200 or \$300 million, falling in the expansionary phases of business activity and rising in the contractions. Such movements are related in considerable measure to changes in interest rates. Demands for credit and interest rates generally fall during recessions (Chart 3), making the retention of excess reserves less expensive. Then, too, with uncertain conditions and a pessimistic outlook, banks probably feel more comfortable holding larger excess reserve balances, just as individuals frequently desire to hold more cash during recessionary periods. Most of the changes in reserve requirement regulations during the past decade have been reductions during recessions, and there is probably a time lag in utilizing all of the "freed" reserves. During periods of business expansion the outlook is more optimistic and both interest rates and the demand for loans rise, providing motivations for banks to hold less excess reserves.

Effect of Increase in Total Reserves

One question in monetary theory and central bank management is whether an increase in total reserves, especially in time of economic recession, results in an expansion of bank credit and money or whether it is merely accompanied in large measure by an increase in excess reserves. There have been three periods since 1951 in which total reserves have been increased markedly for sustained periods.[4] Each of these periods began in a time of economic recession. These periods were December 1953-November 1954, November 1957-June 1958, and April 1960-February 1961. Chart 4 shows cumulative dollar changes in total, required, and excess reserves of member banks during these periods of rapid expansion in total reserves and for six months thereafter.

From December 1953 to November 1954 total reserves (adjusted for seasonal influences and to take account of reserve requirement reductions) were expanded $1,040 million, required reserves rose $920 million, and excess reserves increased $120 million. Similarly, from November 1957 to June 1958, total reserves were expanded $1,060 million, required reserves rose $945 million, and excess reserves increased $115 million. In the April 1960 to February 1961 period, total reserves were increased $905 million, required reserves rising $660 million, and excess reserves rising $245 million. The expansion in excess reserves near the end of 1960 probably reflects a lag in utilizing some of the additional reserves which resulted from the change in the regulation permitting banks to count all of their vault cash as legal reserves.

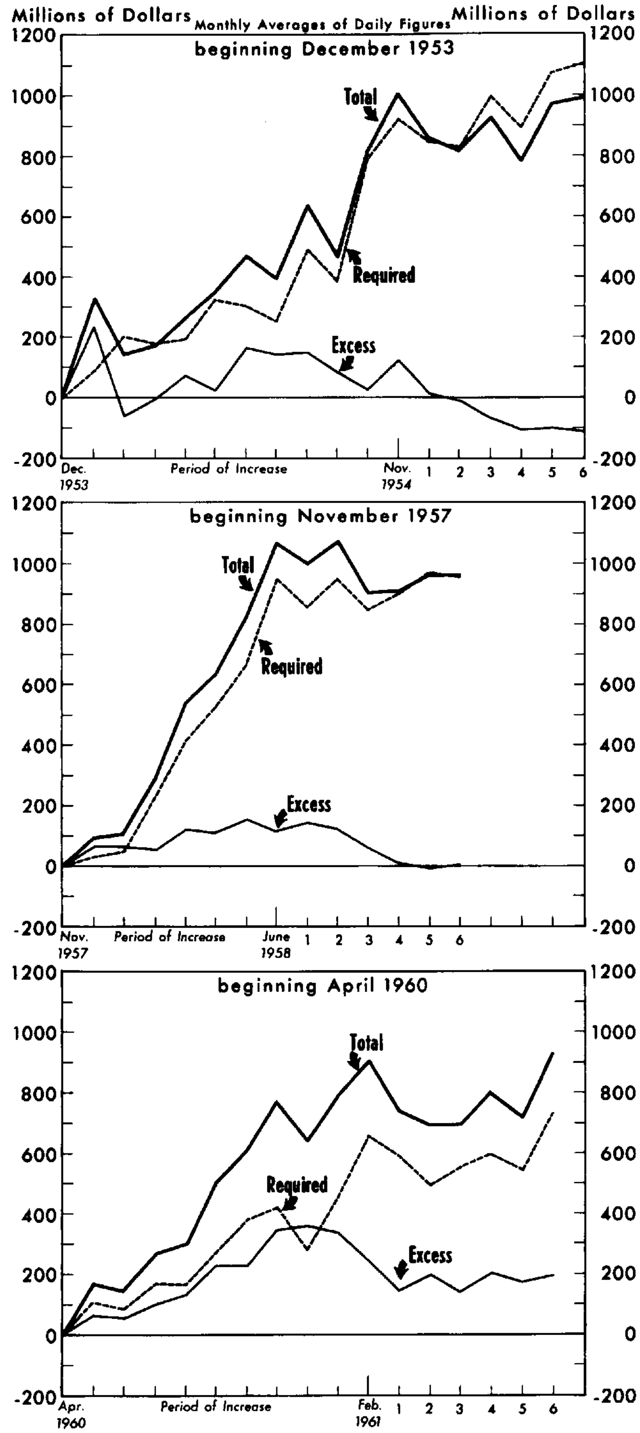
During these periods of rapid expansion in total reserves, changes in excess reserves have normally been small compared with changes in total reserves. During the initial stages of each period, total reserves rose rapidly and required reserves rose also, but usually at a slightly lesser rate (meaning that excess reserves rose). After a few months, total and required reserves increased in a parallel fashion, and there was little change in excess reserves. When the rate of expansion in total reserves declined, required reserves usually continued to rise somewhat and excess reserves declined.

[4]See Chart 1, bottom panel, and also "Member Bank Reserves and the Money Supply" in the March 1962 issue of this *Review*.

Chart 4

Cumulative Changes in Member Bank Reserves

During Periods of Rapid Increase in Total Reserves and Six Months Thereafter



Excess reserves have risen during each of the three most recent business contractions (Chart 2). Increases in the early parts of recessions were associated with modest rises in total reserves and declines in required reserves. Sharp increases in total reserves usually occurred late in recessions and early in recoveries, after excess reserves had already risen somewhat (Chart 1). Hence, when total member bank reserves have been increased rapidly in time of economic recession, bank assets, bank deposits, and the money supply have also increased markedly. The increases in total reserves have not been manifested in any considerable measure in increases in excess reserves.

Conclusions

Use of the term "excess reserves" to indicate a supply of readily available funds or unused lending power is probably misleading. Evidence suggests that each bank attempts to keep excess reserves at a practical minimum in view of all pertinent circumstances. For practical purposes, these reserves are excess in a legal sense only, since the bulk of them seem to be needed for smaller banks to operate efficiently.

Fluctuations in excess reserves do not appear to reduce significantly the Reserve System's control of bank credit and the money supply. Trend and cyclical movements in excess reserves have been moderate and have been related to items such as movements in interest rates, changes in banker demands for liquidity, bank growth, and technological changes. Appropriate Federal Reserve System actions can offset these movements, according to the evidence available. When total reserves have been increased sharply in periods of recession and early recovery, only a small fraction of the increase has generally taken the form of excess reserves. Increases of total reserves in times of recession or early recovery have for the most part been accompanied by increases of bank credit, bank deposits, and the money supply.

The concept of the magnitude of excess reserves as an indication of whether the monetary system is likely to expand or contract is questionable.[5] A relatively high average level of excess reserves that persists for several months does not necessarily indicate that there is an expansive force on bank credit and money; instead, it may reflect a weak credit demand, low interest rates, or an increased desire for liquidity by bankers. Similarly, a relatively small average volume of excess reserves is not a signal that total bank reserves are being provided stingily and that bank credit and money are rising slowly (or declining).

[5] Another indicator of ease or tightness often used (but inversely) is the volume of member bank borrowing from Reserve Banks. Some analysts employ as an indicator of monetary conditions the net of the two concepts, called "net free" or "net borrowed" reserves.

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