

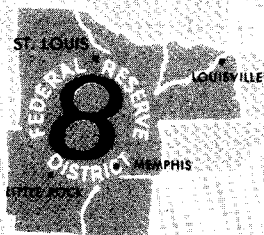
February 1965

FEDERAL RESERVE BANK OF ST. LOUIS

Review

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Volume 47 • Number 2

FEDERAL RESERVE BANK
OF ST. LOUIS

P.O. Box 442, St. Louis, Mo. 63166

1964 Operations

of the Federal Reserve Bank of St. Louis

THIS BANK'S SUMMARY of 1964 developments consists of three parts. A summary of national monetary developments was included in the December 1964 issue of this *Review*. Economic developments in the Central Mississippi Valley were discussed in the January 1965 issue. This article presents the operations of the Federal Reserve Bank of St. Louis, including the three branches at Little Rock, Louisville, and Memphis.

The Federal Reserve Bank of St. Louis is a part of the Federal Reserve System, which includes the Board of Governors in Washington, the 12 Federal Reserve Banks, and the 24 branches. The primary function of the Federal Reserve System is to foster that amount of credit and money which will facilitate orderly economic growth and a stable value of the dollar.

In addition to its role in System monetary policy administration, each Federal Reserve Bank performs a variety of functions which contribute to greater efficiency in the economic system. These functions include service operations, bank supervision and examination, and policy making. Principal service operations include receiving and distributing currency and coin, collecting checks and noncash items, extending credit to member banks, transferring funds, performing fiscal agency operations for the Government, securities safekeeping, and conducting economic research. The principal policy function of an individual Reserve Bank is the establishment of its discount rate (subject to review

and determination by the Board of Governors). The discount rate is the rate of interest charged by the Federal Reserve Banks on loans to member banks. A report on these functions during 1964 follows.

Service Operations

Money Handling

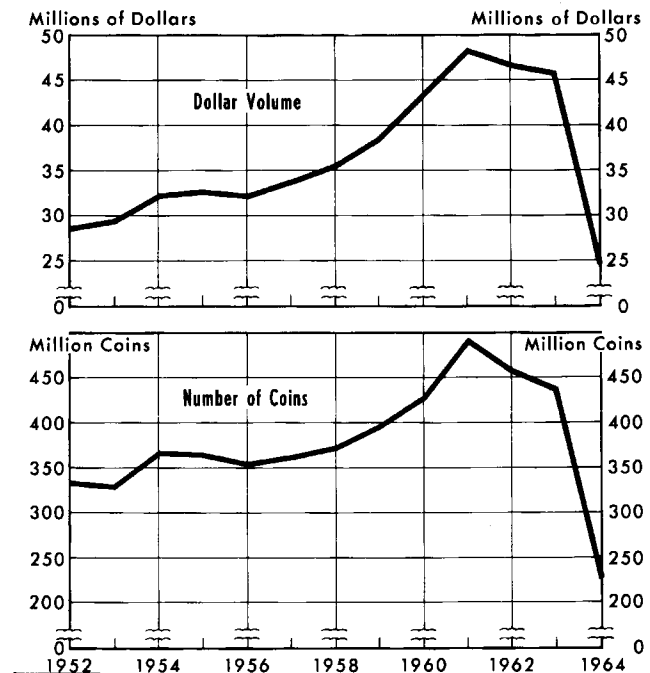
Just as an individual or business obtains currency (paper money) or coin (metallic money) from commercial banks by withdrawing deposits, member banks obtain currency and coin from Reserve Banks by withdrawals from their accounts at the Reserve Banks. Nonmember banks obtain coin and currency from member banks. When member banks receive an excess of coin or currency from depositors, it is sent to the Federal Reserve Bank, where it is sorted and counted and the usable money held for redistribution.

Operations in the Money Department of this bank¹ showed diverse trends in 1964. During the year currency handling rose, while coin handling dropped to the lowest level in recent decades.

¹ Including Little Rock, Louisville, and Memphis branches.

Coin handled at the St. Louis Federal Reserve Bank declined from 436.5 million pieces in 1963 to 226.8 million in 1964, a drop of 48 per cent.² Coin received

Coin Received and Counted



² In this report coin handled (received and counted) includes that deposited by or to the accounts of member banks plus any coin received from the mint which required counting.

VOLUME OF OPERATIONS¹

	Number (Millions)						
	1952	1956	1960	1961	1962	1963	1964
Coin received and counted	332.8	355.4	426.6	490.1	455.8	436.5	226.8
Currency received and counted	217.9	204.6	201.4	190.5	194.7	191.1	201.2
Checks handled ²	116.6	138.9	170.7	181.4	194.6	206.4	226.1
Noncash collection items .....	.378	.489	.560	.593	.603	.559	.528
U. S. Government coupons paid .....	.721	.626	.872	.857	.845	.795	.791
U. S. Savings Bonds handled ³	5.939	7.012	7.534	7.269	7.584	7.564	8.155
Other Government securities handled ³ ..	.195	.246	.457	.444	.446	.460	.554
Transfers of funds .....	.106	.133	.152	.159	.170	.174	.188

	Dollar Amount (Millions)						
	1952	1956	1960	1961	1962	1963	1964
Coin received and counted	28.8	32.2	43.3	48.3	46.6	45.9	24.5
Currency received and counted	1,288.8	1,187.8	1,186.0	1,143.2	1,169.0	1,179.1	1,300.2
Checks handled ²	47,934	56,661	68,537	71,037	77,030	83,656	91,837
Noncash collection items	365.5	340.1	391.1	373.6	472.7	553.9	466.7
U. S. Government coupons paid		70.4	123.1	129.9	135.7	137.6	144.9
U. S. Savings Bonds handled ³	594.3	757.7	685.9	639.2	635.1	594.7	615.5
Other Government securities handled ³ ..	6,808.5	7,933.9	10,933.3	12,033.4	14,563.5	15,365.1	16,015.5
Transfers of funds	28,067	41,410	61,434	69,379	80,747	90,433	94,453
Loans to member banks—							
daily average outstanding	40.8	22.3	17.4	3.5	3.7	6.9	5.8

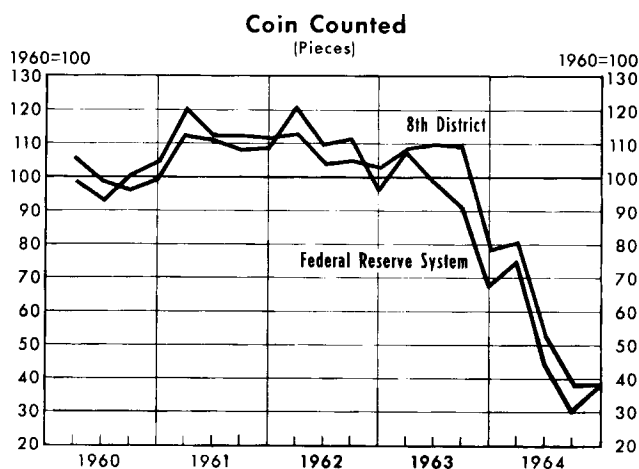
	Number as of December 31						
	1952	1956	1960	1961	1962	1963	1964
Officers and employees	1,256	1,164	1,156	1,157	1,180	1,162	1,163

¹ Total for the St. Louis office and the Louisville, Memphis, and Little Rock branches.

² Excludes Government checks and money orders.

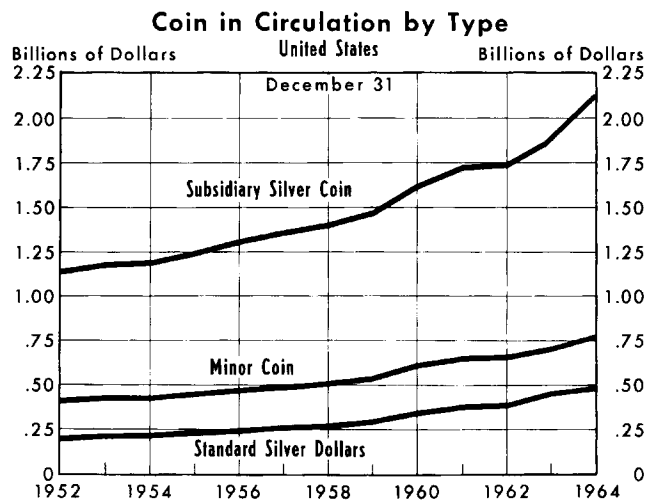
³ Issued, exchanged, and redeemed.

and counted reached a plateau in the first quarter of 1961, drifted slowly down until the third quarter of 1963, and then declined rapidly through the fourth quarter of 1964. The number of pieces received and counted declined from 129.0 million in the first quarter of 1961 to 41.6 million in the fourth quarter of 1964, a decline of 68 per cent. The dollar amount declined from \$11.3 million to \$3.6 million during the period. A similar decrease in coin handling has been experienced throughout the Federal Reserve System.



The St. Louis office showed a greater decline in the dollar amount of coin received and counted than did the Little Rock, Louisville, and Memphis branches. This corresponds to a tendency throughout the nation for the larger commercial and industrial centers to have greater difficulty in obtaining sufficient coin supplies. The greatest percentage declines were at the New York, Philadelphia, Boston, and Chicago Federal Reserve Banks.

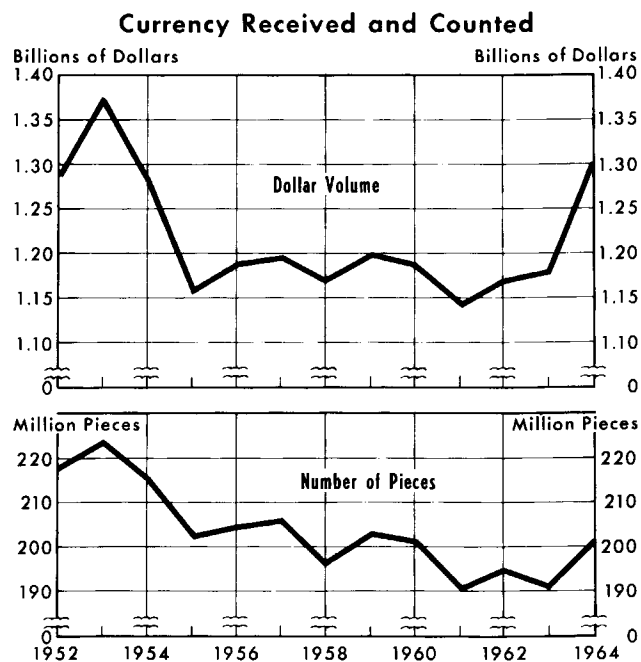
The decline in coin handling since 1961 is counter to the trend in earlier years. From 1950 to 1959, prior to the coin shortage, the number of coins handled by this bank rose 33 per cent. The number handled by all Federal Reserve Banks rose 38 per cent, roughly proportional to the increase of coin in circulation.



While the amount of coin in circulation³ has risen rapidly since the early 1950's, demand has risen even faster, resulting in shortages in all Federal Reserve Districts. Coin in circulation has been rising at an increasing rate. During the seven-year period from 1952 to 1959 the rate of increase was 3.6 per cent per year, while in the last five years the rate of increase was 8.1 per cent per year. This great increase in coin, which has taxed the facilities of the Philadelphia and Denver mints, failed to satisfy the rapidly growing demands. Member banks seldom had excess supplies to return to the Federal Reserve Bank because of the general shortage, and rationing of coin was necessary.

The rapid increase in demand for coin probably arises from a number of causes, including the higher level of economic activity, increased use of coin machines, sales taxes, and additional demands by coin collectors.

Currency handled in 1964 rose to 201 million pieces from 191 million pieces in 1963, an increase of about 5 per cent. The dollar volume of currency handled rose to \$1.3 billion, an increase of 10 per cent. Currency handling has shown little net change since the early 1950's. Both number and dollar value of pieces handled declined slightly from 1952 to 1960 but had recovered most of the loss by 1964. The amount of currency in circulation in the nation rose 28 per cent from 1952 to 1964.



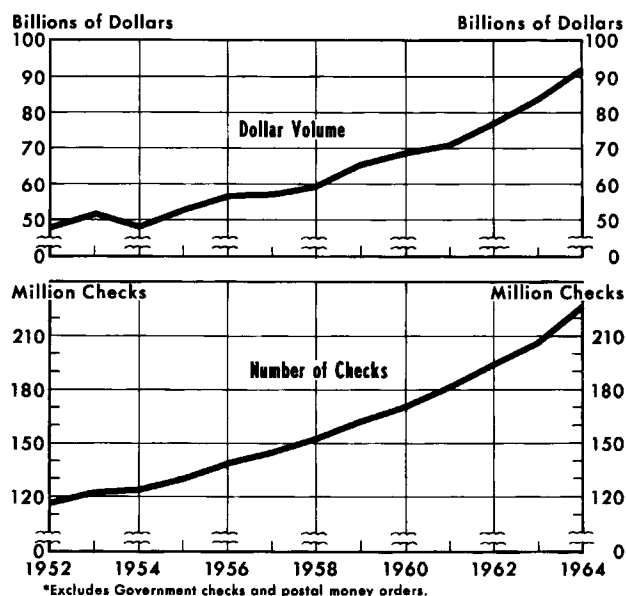
³ Coin in circulation means coin in the hands of the public and the commercial banks (coin outside the Treasury and the Federal Reserve Banks).

Check Collections

The Federal Reserve Banks collect checks and provide a mechanism through which commercial banks settle for the checks. This facilitates the use of demand deposits by individuals and businesses in making payments. This bank may receive checks from each of the 481 member banks in the Eighth District, from other Federal Reserve Banks, from Government agencies, and from others. In order to increase the promptness of collections, the Reserve Bank in some cases receives checks directly from member banks in other Federal Reserve Districts. Checks may be sent to each of the member banks and the 759 nonmember par remitting banks⁴ in the Eighth District and to other Federal Reserve Banks for collection.

The number of checks cleared through the Federal Reserve Bank of St. Louis, including the branches, rose from 68.6 million in 1945 to 116.6 million in 1952, 170.7 million in 1960, and 226.1 million in 1964, an increase of 6.5 per cent per year compounded for the 19-year period. The increase from 1963 to 1964 was almost 10 per cent (see table, page 2).

Checks Collected*



Electronic Check Handling

Rapid growth in volume of check collections in recent years has led to a need for improvement in the check collection system. The bank took a major step in 1964 toward increased efficiency in check operations with the installation of electronic equipment at St. Louis and Louisville.

⁴ All checks collected and cleared through the Federal Reserve Banks must be paid in full by the banks on which they are drawn, without deduction of a fee or charge; that is, they must be payable at par.

The success of the electronic system depends upon the cooperation of commercial banks in preparing checks for high-speed handling. Prior to such handling, checks must have routing symbol transit numbers, which are the payee bank's electronic address, preprinted in magnetic ink and dollar amounts magnetically encoded. The routing symbol transit numbers are preprinted as checks are prepared for commercial bank customers. If amounts are encoded early in the collection process, checks can flow rapidly and efficiently through the banking system for collection.

About 88 per cent of the checks received at the St. Louis office during recent months were preprinted with routing symbol transit numbers. Only about 35 per cent of all checks received, however, contained the preprinted routing symbol numbers plus the encoded amounts, fully qualifying them for electronic handling at this bank. These fully-qualified checks are all handled on the electronic equipment. In addition, part of the checks received which lack only the encoded amounts are prepared for electronic handling at this bank. At present about 12 per cent of all checks received have neither the preprinted routing symbol transit numbers nor the encoded amounts, and none of these checks are afforded electronic processing.

The electronic check processing system consists of three components: a central processor-sorter-reader, a printer, and a card read-punch. The sorter-reader endorses and sorts the checks at speeds up to 1,600 items per minute. In the same operation it reads the amounts into the central processor or computer, where they are totaled and stored for the various balancing operations.

The printer prints out the amounts, routing symbol transit numbers, and totals of checks being forwarded to banks on which they are drawn. Printing is done at speeds up to 1,285 lines per minute. The card read-punch unit punches totals of checks on the various drawee banks and various control figures which can be fed back into the machine for balancing purposes.

At the present time about 275,000 checks per day (about two-thirds of the checks received) are completely sorted through the high-speed equipment at the St. Louis office and mailed to drawee banks. On the average, each check passes through the sorter-reader 2.8 times before it is finally sorted to the appropriate addressee. In comparison with electronic processing, about 7,000 item passes per day can be handled on each of the proof machines which are being replaced by the high-speed equipment.

Development of electronic data processing machines for check collection grew out of studies of a committee appointed in 1955 by the Bank Management Commission of the American Bankers Association in cooperation with the Federal Reserve System and others. A major problem was the development of a common language that could be read by both humans and electronic machinery. The magnetic ink coding system was approved in 1958. Banks began to implement the recommended encoding system in late 1959, and by late 1964 significant progress had been made. As indicated earlier, 88 per cent of checks received at the St. Louis office have routing symbols preprinted. The percentage is somewhat larger for the Federal Reserve System as a whole. By 1961 a number of the Federal Reserve Banks had installed pilot electronic check collecting systems to test the various manufacturers' equipment. At least one system has now been installed in each of the Federal Reserve Banks, and large numbers of commercial banks have similar installations.

Volume of Check Handling in the System

Check collections through the Federal Reserve System as a whole have increased at about the same rate as at the St. Louis bank. Such collections rose from 2.3 billion items in 1952 to 4.1 billion in 1963,⁵ an annual rate of 5.4 per cent, compared with 5.3 per cent at the St. Louis bank. The dollar amount collected during this period rose from \$840 billion to \$1,364 billion, or 4.5 per cent per year. Contributing to this increase has been both an increase in number of par remitting bank offices and an over-all gain in the size of the economy. The number of par remitting banking offices in the nation rose from 17,274, or 89.1 per cent of all banking offices, in 1952 to 25,190, or 92.9 per cent, in 1963. Over the years check writing per capita has increased with rising incomes. Checking accounts probably number in excess of 60 million, about the same as the number of households in the country, with payments by check probably accounting for more than 90 per cent of the dollar value of all transactions in the nation.

Despite the rapid increase in volume of checks collected through the Federal Reserve System, such collections apparently are a smaller proportion of total check collections than in the early 1950's. In the three years 1951-1953, the dollar volume of checks collected through the System averaged about 50 per cent of all checks and other charges to demand deposits at all Federal Reserve reporting centers. In comparison, System collections averaged only 37 per cent of such

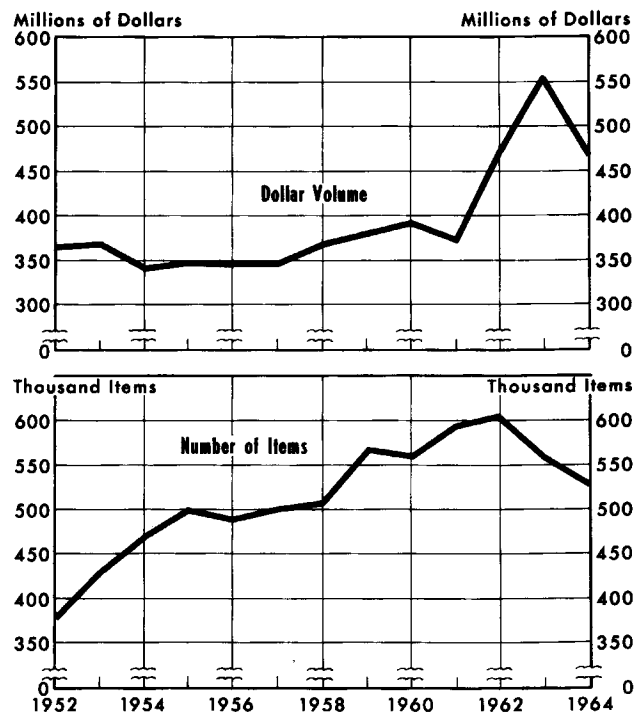
checks and charges in the three years 1961-1963. An increase in the area covered by local clearing exchanges where checks are exchanged directly from the paying bank to the bank on which the check is drawn and the installation of automation procedures which encourage interbranch clearings are probably major factors in the relative decline of System collections.

One exception to the generally consistent increase in check collections through the Federal Reserve System in recent years was a decline at the San Francisco bank in 1964. During the first nine months of the year the number of checks collected was down 14 per cent compared to the corresponding period a year earlier. This exception apparently resulted from establishment of automated regional clearing centers by commercial banks.

Noncash Collections

In addition to checks, the Federal Reserve Banks handle other items for collection. Included are drafts, promissory notes, bonds and bond coupons (other than obligations of the United States Government and its agencies), and other documents. These noncash collections in the Eighth District offices were down 6 per cent in 1964 from 1963. Dollar volume was down 16 per cent (see table, page 2).

Noncash Collection Items

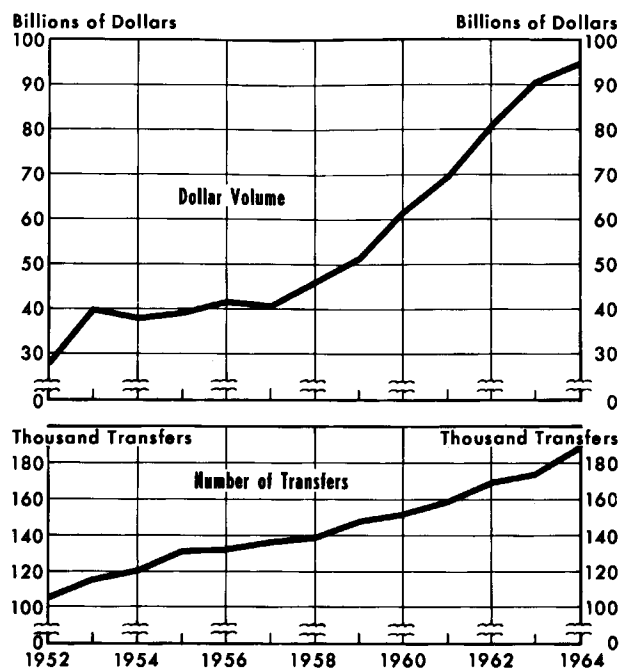


Transfers of Funds

Interbank transfers of funds are largely movements of bank balances between Federal Reserve Banks, many of which result from Federal funds transactions. Such transfers by this bank in 1964 totaled 188,000,

⁵Excluding Government checks and postal money orders.

Transfers of Funds



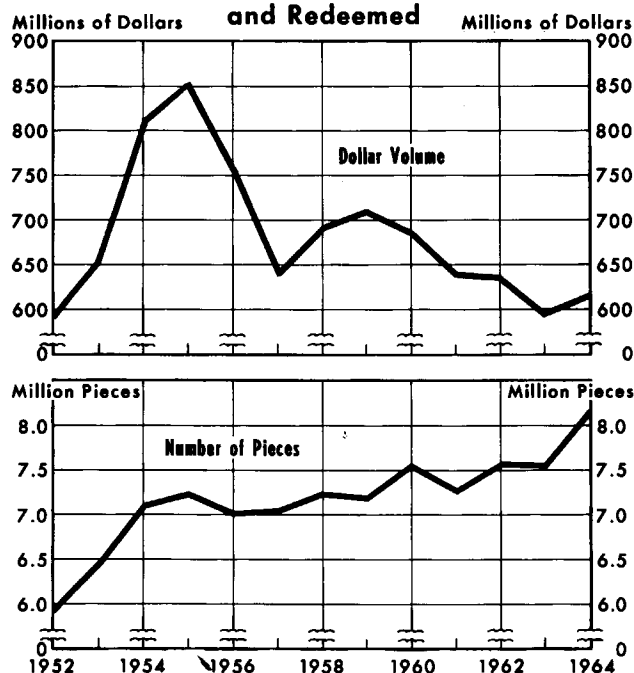
up 8.0 per cent from a year earlier. The dollar value of transfers, totaling \$94.5 billion, was up 4.4 per cent.

Fiscal Agency Operations

Each Federal Reserve Bank acts as a fiscal agent for the United States Government. In close cooperation with the Treasury Department, the Reserve Banks carry the principal checking accounts of the Government, issue and redeem Government obligations, and perform various other Governmental financial duties.

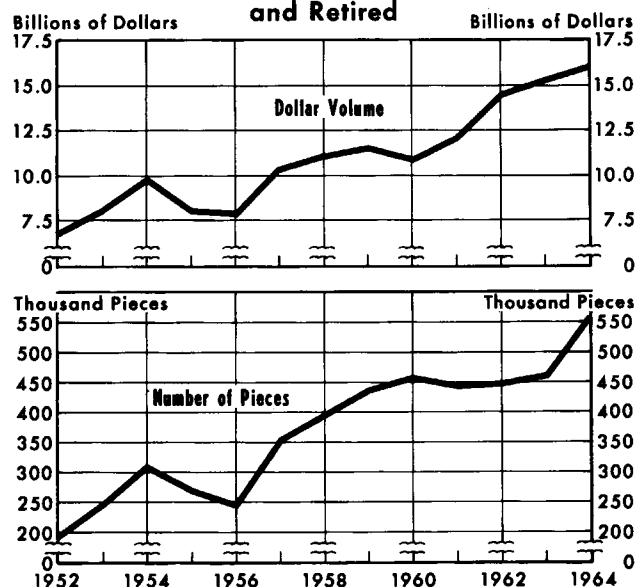
The Federal Reserve Bank of St. Louis issued,

U.S. Savings Bonds Issued, Exchanged, and Redeemed



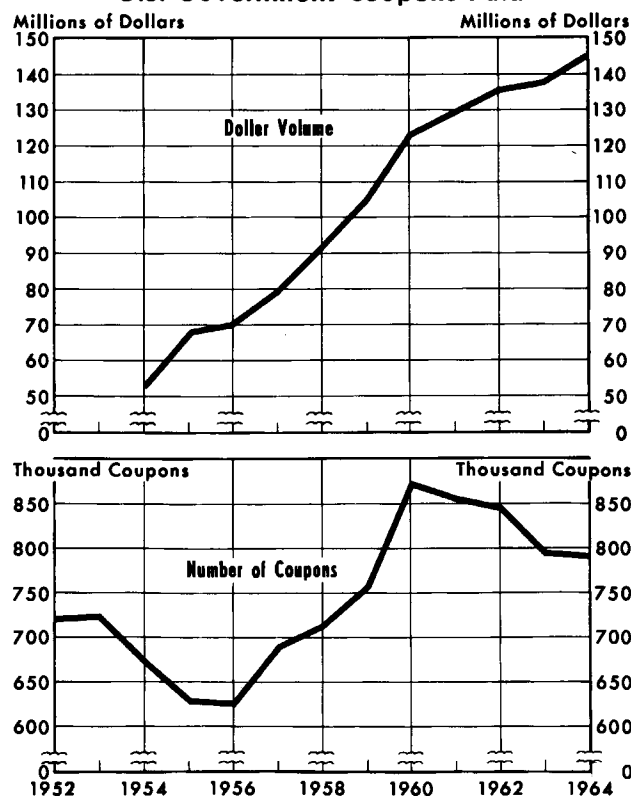
exchanged, and redeemed 8.2 million United States Savings Bonds in 1964, compared with 7.6 million in 1963. The value of such bonds redeemed was up 3 per cent in 1964. Other Government securities issued, serviced, or retired in 1964 totaled 554,000, valued at \$16 billion. This was a 20 per cent increase in number

Other Government Securities Issued, Serviced, and Retired



of items and a 4 per cent increase in dollar value from 1963. United States Government coupons paid were down 1 per cent in number, but dollar volume was up 5 per cent (see table, page 2).

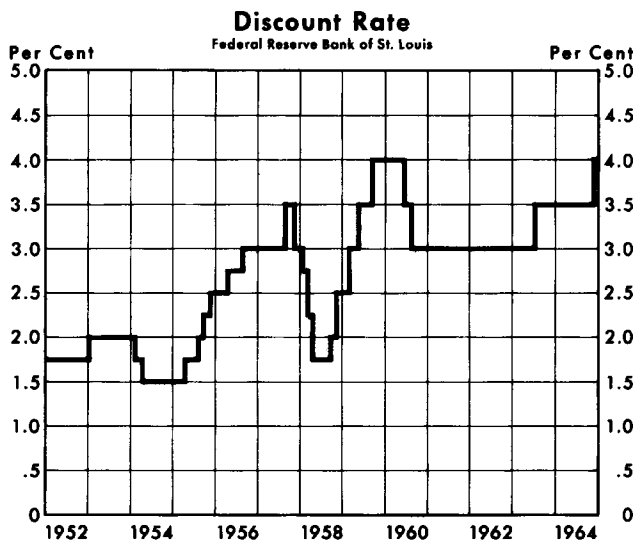
U.S. Government Coupons Paid



Other Operations

The Discount Rate and Lending Operations

The Federal Reserve Banks extend credit to member banks. The interest rate charged on loans to member banks was changed only once during 1964, being raised from 3½ to 4 per cent in November.⁶ The previous change in this rate was in July 1963 when it was raised from 3 to 3½ per cent. The rate has been in the 3-4 per cent range throughout the past five years.

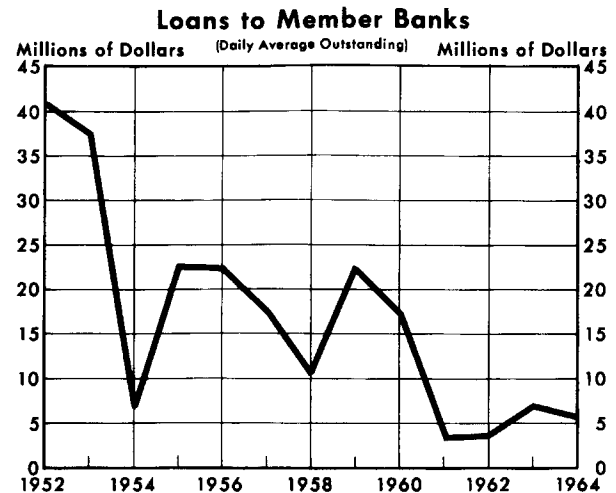


Federal Reserve credit is generally extended on a short-term basis to a member bank to enable it to adjust its asset position when necessary because of developments such as a sudden withdrawal of deposits or seasonal requirements for credit beyond those which can reasonably be met by use of the bank's own resources. Federal Reserve credit is also available for longer periods when necessary in order to assist member banks in meeting unusual situations resulting from national, regional, or local difficulties or from exceptional circumstances involving only particular member banks.

Except in extremely unusual cases, applications for credit by member banks at the Federal Reserve Bank of St. Louis are granted without delay.

Lending operations by the Federal Reserve Bank of St. Louis have been at relatively low levels for the past four years. Average daily outstandings of \$5.8 million to member banks in the Eighth District in 1964 were somewhat less than a year earlier but

⁶The rate charged under Sections 13 and 13a of the Federal Reserve Act on advances secured by U. S. Government securities and discounts of and advances secured by eligible paper.



slightly above the average since early 1961. In comparison, average daily borrowings were more than \$18 million for the six years 1955-1960 (see table, page 2).

Supervision and Examination

One function of the Federal Reserve System is to maintain effective supervision of commercial banks. The objective of such supervision is to foster and maintain a sound banking system.

A major supervisory responsibility is evaluation of assets, operations, policies, and the effectiveness of management of the banks subject to review. Examinations provide the basic information which enables supervisory authorities to contribute to prevention or correction of situations that might adversely affect the economy or the general public interest.

Supervision by the Federal Reserve Bank of St. Louis is exercised principally through examination of the 143 state member banks.⁷ The major objective of these examinations is to develop information that will disclose the current financial condition of each bank, to ascertain whether the bank is complying with applicable laws and regulations, and to indicate the bank's future operating prospects. Examinations were made of all state member banks in the district in 1964.

The number of member banks in the Eighth Federal Reserve District increased by six in 1964—from 475 to 481. This was the net result of an increase of ten national banks and a decrease of four state member banks. The number of banks remitting at par increased by 22 during the year, while the number of nonpar banks declined by 15 (see table, page 10).

⁷Number as of December 31, 1964.

Directors and Officers

Directors

Chairman of the Board and Federal Reserve Agent

RAYMOND REBSAMEN, Chairman of the Board
Rebsamen & East, Inc.
Little Rock, Arkansas

Deputy Chairman of the Board

SMITH D. BROADBENT, JR.
Broadbent Hybrid Seed Co.
Cadiz, Kentucky

H. LEE COOPER, President, Ohio Valley National Bank of
Henderson, Henderson, Kentucky

HARRY F. HARRINGTON, Chairman of the Board and
President, The Boatmen's National Bank of St. Louis,
St. Louis, Missouri

HAROLD O. McCUTCHAN, Senior Executive Vice President,
Mead Johnson & Company, Evansville, Indiana

ROLAND W. RICHARDS, Vice President and Secretary,
Laclede Steel Company, St. Louis, Missouri

HARRY E. ROGIER, President, The First National Bank of
Vandalia, Vandalia, Illinois

WILLIAM KING SELF, President, Riverside Industries,
Marks, Mississippi

MARK TOWNSEND, Chairman of the Board
Townsend Lumber Company, Inc.
Stuttgart, Arkansas

Member of Federal Advisory Council

JAMES P. HICKOK, Chairman of the Board
First National Bank in St. Louis
St. Louis, Missouri

Officers

HARRY A. SHUFORD, *President*

DARRYL R. FRANCIS, *First Vice President*

MARVIN L. BENNETT, *Vice President*

FRED BURTON, *Vice President*

E. FRANCIS DEVOS, *Vice President*

DONALD L. HENRY, *Vice President*

HOMER JONES, *Vice President*

DALE M. LEWIS, *Vice President*

HOWARD H. WEIGEL, *Vice President and Secretary*

JOSEPH C. WOTAWA, *Vice President*

ORVILLE O. WYRICK, *Vice President*

GEORGE W. HIRSHMAN, *General Auditor*

GERALD T. DUNNE, *General Counsel and
Assistant Secretary*

NORMAN N. BOWSHER, *Assistant Vice President*

EARL H. CHAPIN, *Assistant Chief Examiner*

GEORGE W. DENNISON, *Assistant Vice President*

J. M. GEIGER, *Assistant Vice President*

WOODROW W. GILMORE, *Planning Officer*

JOHN J. HOFER, *Assistant Vice President*

WILBUR H. ISBELL, *Chief Examiner*

WILLIS L. JOHNS, *Assistant Vice President*

RICHARD O. KALEY, *Assistant Vice President*

STEPHEN KOPTIS, *Assistant Vice President*

F. GARLAND RUSSELL, JR., *Assistant Counsel*

PAUL SALZMAN, *Assistant Vice President*

W. E. WALKER, *Assistant Vice President*

JOSEPH C. WELMAN, JR., *Assistant Chief Examiner*

LITTLE ROCK BRANCH

Directors

H. C. ADAMS, Executive Vice President, The First National Bank of DeWitt, DeWitt, Arkansas

ROSS E. ANDERSON, Chairman of the Board, The Commercial National Bank of Little Rock, Little Rock, Arkansas

FREDERICK P. BLANKS, Planter, Parkdale, Arkansas

CECIL W. CUPP, President & Chairman, Arkansas Bank and Trust Company, Hot Springs, Arkansas

R. M. LAGRONE, JR., President, The Citizens National Bank of Hope, Hope, Arkansas

REEVES E. RITCHIE, President, Arkansas Power & Light Company, Little Rock, Arkansas

CAREY V. STABLER, President, Little Rock University, Little Rock, Arkansas

Officers

FRED BURTON, *Vice President and Manager*

JOHN F. BREEN, *Cashier*

HOWARD J. JENSEN, *Assistant Cashier*

JOHN K. WARD, *Assistant Cashier*

LOUISVILLE BRANCH

Directors

LISLE BAKER, JR., Executive Vice President & General Manager, The Courier-Journal & Louisville Times Company, Louisville, Kentucky

RAY A. BARRETT, President, The State Bank of Salem, Salem, Indiana

WM. G. DEATHERAGE, President, Planters Bank & Trust Co., Hopkinsville, Kentucky

C. HUNTER GREEN, Vice President and General Manager, Southern Bell Telephone and Telegraph Company, Louisville, Kentucky

JOHN H. HARDWICK, President, The Louisville Trust Company, Louisville, Kentucky

J. E. MILLER, Executive Vice President, Sellersburg State Bank, Sellersburg, Indiana

RICHARD T. SMITH, Farmer, Madisonville, Kentucky

Officers

DONALD L. HENRY, *Vice President and Manager*

JOHN W. MENGES, *Cashier*

LOUIS A. NELSON, *Assistant Cashier*

CLARENCE J. WOERTZ, *Assistant Cashier*

MEMPHIS BRANCH

Directors

LEON C. CASTLING, President, First National Bank at Marianna, Marianna, Arkansas

CHARLES R. CAVINESS, President, National Bank of Commerce of Corinth, Corinth, Mississippi

SAM COOPER, President, HumKo Products Division, National Dairy Products Corporation, Memphis, Tennessee

EDWARD B. LEMASTER, President, Edward LeMaster Co., Inc., Memphis, Tennessee

ALLEN MORGAN, President, The First National Bank of Memphis, Memphis, Tennessee

CON T. WELCH, President, Citizens Bank, Savannah, Tennessee

JAMES S. WILLIAMS, Plant Manager, American Greetings Corporation, Osceola, Arkansas

Officers

E. FRANCIS DEVOS, *Vice President and Manager*

BENJAMIN B. MONAGHAN, *Cashier*

PAUL I. BLACK, JR., *Assistant Cashier*

JOSEPH P. GARBARINI, *Assistant Cashier*

BANKS IN THE EIGHTH FEDERAL RESERVE DISTRICT

(December 31)

State ¹	State Member		National		Nonmember Par		Nonmember Nonpar		Total	
	1964	Change 1963-1964	1964	Change 1963-1964	1964	Change 1963-1964	1964	Change 1963-1964	1964	Change 1963-1964
Arkansas	20	-1	63	+ 3	67	+ 6	96	- 5	246	+3
Illinois	26	0	120	+ 1	133	+ 1	0	0	279	+2
Indiana	18	-1	36	- 1	45	- 2	0	0	99	-4
Kentucky	9	0	35	0	155	+ 1	0	0	199	+1
Mississippi	1	0	15	+ 2	23	+ 6	65	- 6	104	+2
Missouri	67	-2	58	+ 5	302	+ 4	47	- 4	474	+3
Tennessee	2	0	11	0	34	0	47	0	94	0
	143	-4	338	+10	759	+16	255	-15	1,495	+7

¹ Includes all of Arkansas but only portions of the remaining states.

Research

Research operations are designed to aid the policy-making functions of the bank and the System.

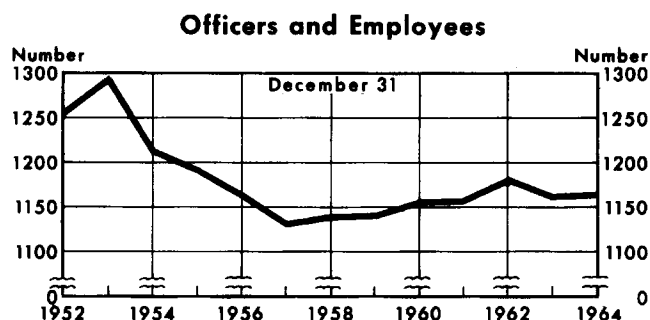
Research at the Federal Reserve Bank of St. Louis is directed toward national business and financial problems along with economic developments in the Eighth Federal Reserve District. Such analyses are used to assist the President in discharging his responsibilities as a participant in the Federal Open Market Committee deliberations and in formulating his recommendations to the bank's Board of Directors. In response to requests from outside the bank, the research staff also engages in public information activities.

Largely as a by-product of its background studies for policy formulation, the bank continued to publish the monthly *Review*. The *Review* contains current financial and business articles and other materials pertinent to Federal Reserve operations. The Research Department also publishes a semi-monthly release on "Bank Reserves and Money," a weekly release on "Financial Data," and a monthly release of "Selected

Economic Indicators" for metropolitan areas in the Central Mississippi Valley.

Personnel

Officers and employees of the bank, including the three branches, numbered 1,163 at the close of 1964, about the same as a year earlier. The number declined



somewhat from 1952 to 1956 as a result of a reduction in some operations performed relative to the Korean War effort and efficiencies achieved in other functions. While the number of employees in some departments has increased and in others has decreased since 1956, the total number has remained relatively stable, with increased efficiencies through mechanization in the larger operations generally offsetting the greater volume of work (see table, page 2).

SUBSCRIPTIONS to this bank's REVIEW and its statistical releases, "Financial Data," "Bank Reserves and Money," and "Selected Economic Indicators," are available to the public without charge. Requests should be directed to: Research Department, Federal Reserve Bank of St. Louis, P. O. Box 442, St. Louis, Missouri 63166.

Statements

Net earnings of the Federal Reserve Bank of St. Louis during 1964, before payments to the United States Treasury, were \$41.6 million, up \$5.7 million from 1963. Dividends to stockholders (member banks in the Eighth District) were \$1.1 million, 6 per cent of paid-in capital. Payments totaling \$56.9 million were set aside for the Treasury as interest on Federal Reserve notes. These funds represent the remainder of current earnings and a withdrawal of \$16.3 million from surplus. The bank's total capital accounts declined from \$51.4 million at the end of 1963 to \$35.9 million at the end of 1964. This decline

COMPARATIVE PROFIT AND LOSS STATEMENT

(Thousands of dollars)

	1964	1963	Change
Total earnings	\$ 52,073	\$ 45,618	\$+ 6,455
Net expenses	10,488	9,713	+ 775
Current net earnings	41,585	35,905	+ 5,680
Net additions or deductions	+ 27	+ 28	— 1
Net earnings before payments to U. S. Treasury	\$ 41,612	\$ 35,933	\$+ 5,679
Distribution of net earnings:			
Dividends	\$ 1,054	\$ 986	\$+ 68
Interest on Federal Reserve notes	56,863	32,406	+24,457
Transferred to surplus	—16,305	2,541	—18,846
Total	\$ 41,612	\$ 35,933	\$ 5,679

resulted from the withdrawal from surplus and the net effects of issue and redemption of capital stock.

COMPARATIVE STATEMENT OF CONDITION

(Thousands of dollars)

	December 31, 1964	December 31, 1963
Assets		
Gold certificate reserves	\$ 636,030	\$ 693,507
Federal Reserve notes of other banks	32,033	21,923
Other cash	6,401	13,417
Discounts and advances	1,220	3,088
U. S. Government securities	1,436,374	1,325,049
Uncollected items	409,868	298,295
Other assets	26,543	21,620
Total assets	<u>\$2,548,469</u>	<u>\$2,376,899</u>
Liabilities and Capital Accounts		
Federal Reserve notes (net)	\$1,409,903	\$1,340,343
Deposits:		
Member banks—reserve accounts	694,156	651,848
U. S. Treasurer—general account	56,288	82,828
Other	11,497	8,707
Deferred availability cash items	318,377	238,588
Other liabilities and accrued dividends ..	22,362	3,213
Total capital accounts	35,886	51,372
Total liabilities and capital accounts ...	<u>\$2,548,469</u>	<u>\$2,376,899</u>



Federal Debt Lengthened

ECONOMIC ACTIVITY continued to move upward strongly in December and January, following a hesitation in the fall because of strikes in the auto industry. The nation's money supply continued to increase at a moderate rate, and interest rates remained relatively steady. In January the United States Treasury conducted an advance refunding of a sizable portion of the public debt.

Debt Management

The Treasury's January advance refunding¹ was the eleventh offering of its kind since June 1960. The operation was one of the largest, and, from the Treasury's viewpoint, one of the most successful since this technique was introduced (see table).² A large amount

of short-term debt was removed, reducing refinancing necessities for coming years and lengthening the average maturity of the Federal debt. Although the volume of short-term liquid instruments (other than Treasury bills) was reduced, the level and structure of interest rates changed only slightly.

The offering was announced December 30, and holders of eligible securities had until January 8 to effect exchanges. Over \$33 billion of outstanding issues maturing within three years were eligible for the exchange. About \$22 billion of these issues were held by the public—i.e., outside Government investment accounts and Federal Reserve Banks. The public's holdings of these issues represented about 13 per cent of its total holdings of marketable debt. About \$9 billion of the eligible issues held by the public were exchanged for the three issues offered in the refunding, maturing from 1970 through 1992.

Compared with previous advance refundings, the January operation produced a relatively high rate of response by the public (40.7 per cent), exceeded only by the 51.1 per cent exchange of a September 1961 offering (see table). A high rate of exchange generally reflects confidence by private investors in the stability of the long-term market.

The January refunding increased the average maturity of the debt by 5.5 months. This increase was exceeded by only one previous advance refunding. At the end of January the average maturity of the debt was an estimated 5 years and 4 months, 3 months longer than a year earlier.

TREASURY ADVANCE REFUNDINGS

June 1960 - January 1965

(Dollar figures in billions)

Date	Amount of Eligible Issues		Amount of Exchanges			Increase in Average Maturity of Marketable Debt ²
	Total	Held by the Public ¹	Total	Public	Per Cent of Public Holdings Exchanged	
June 1960	\$11.2	\$11.0	\$4.2	\$4.1	37.1	0.8 months
October 1960	12.5	10.8	4.0	3.4	31.4	6.3
March 1961	19.4	17.9	6.0	5.4	30.3	1.6
September 1961	7.6	5.5	3.8	2.8	51.1	4.5
March 1962	18.7	16.9	5.2	4.2	24.7	4.1
September 1962	26.8	19.1	7.9	7.5	39.4	2.9
March 1963	29.0	20.3	8.0	7.7	37.8	3.1
September 1963	32.1	23.0	6.7	6.5	28.4	4.3
January 1964	24.7	15.3	3.0	2.7	17.4	1.6
July 1964	41.7	26.6	9.3	9.2	34.6	4.8
January 1965	33.1	22.1	9.7	9.0	40.7	5.5

¹ Excludes holdings of U. S. Government investment accounts and Federal Reserve Banks.

² The average maturity is computed for total outstanding marketable debt.

Source: U. S. Treasury Department.

Objectives of Advance Refunding. The advance refunding technique provides added flexibility to the Treasury in the conduct of debt management operations. As a means for debt lengthening it minimizes interference with the flow of funds into long-term private investment.

This idea is based on the assumption that most of the new long-term bonds taken in the refunding will be substituted for shorter-term issues held by investors who are essentially long-term holders. Since only a relatively small change in ownership is involved, little new savings will be absorbed, and the impact on the long-term investment market will be slight.

Advance Refunding and Economic Activity. The impact of advance refunding operations on economic activity is not certain. Debt operations generally have an impact on the economy by influencing "liquidity" and the level and structure of interest rates.³ Any such effects from the recent refunding remain to be demonstrated.

An advance refunding changes the liquidity of investors' assets by substituting securities generally considered to be less liquid for those previously outstanding. However, it has been argued that the shift resulting from an exchange does not cause any investor, because of the terms of the refunding, to lose liquidity he did not desire to relinquish.⁴ According to this view, both the supply and the demand for liquidity decline, and the net effects on economic activity may be slight. Furthermore, empirical studies have not produced clear evidence that over-all liquidity is an important determinant of aggregate spending.⁵

In addition to liquidity effects, there are also interest rate effects associated with Treasury debt operations. It is widely believed that an exchange of long-term bonds for short-term debt will tend to force up long-term interest rates and lower short-term rates. An increased supply of long-term securities, with unchanged demand, will lower prices and thereby increase yields. Reduction of the supply of short-term securities will result in a bidding up of prices of those remaining outstanding and thereby lower yields.

The actual impact of a particular debt operation on the structure of interest rates is difficult to assess, however. Because of this difficulty, conflicting theories of interest rate structure have developed.⁶ Depending on which theory is accepted, the secondary readjustments to the debt operation will be expected to give different results.

The assessment of the impact of debt operations on interest rate structure is complicated by the influence of other factors. Observed rates reflect private supply and demand for funds and the actions of the monetary authority. To ferret out the precise effects of debt operations on rate structure by looking at observed rates is difficult.

An attempt to evaluate the effects on private spending of changes in the level and the structure of interest rates introduces additional complications.⁷ A rise in the long-term rate tends to be contractionary, and a fall in the short-term rate, expansionary. The net effect on spending depends on which of these two effects is greater.

Evaluation of January Advance Refunding. A measure which approximates the contribution of Treasury debt management to liquidity in the economy is the

³For discussions of the economic effects of debt operations, see Warren L. Smith, *Debt Management in the United States*, Study Paper No. 19 for the Joint Economic Committee (Washington, D. C.: Government Printing Office, 1960), and James Tobin, "An Essay on Principles of Debt Management," *Fiscal and Debt Management Policies*, prepared for the Commission on Money and Credit, 1963.

⁴For an exchange of views on this subject, see Thomas R. Beard, "Counter-Cyclical Debt Management—a Suggested Interpretation," *Southern Economic Journal*, January 1964, and Robert J. Lawrence, "Counter-Cyclical Debt Management: Comment," and Beard's reply, both in *Southern Economic Journal*, January 1965.

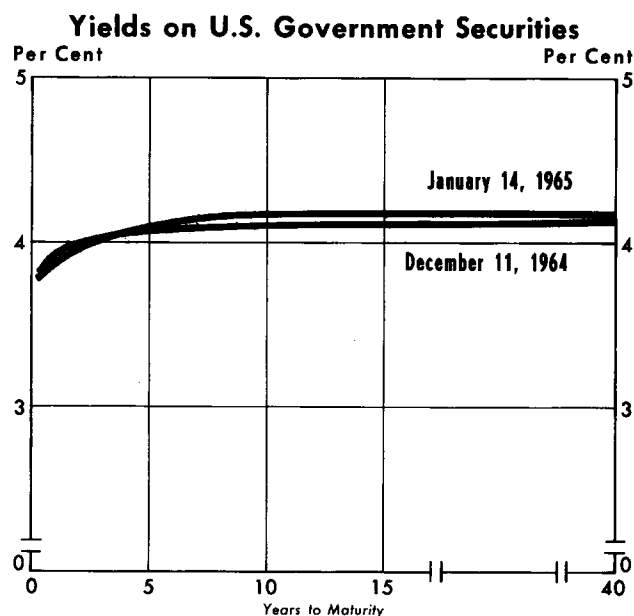
⁵For a discussion of the influence of liquid assets on private spending, see Daniel B. Suits, "The Determinants of Consumer Expenditure: A Review of Present Knowledge," and Edwin Kuh and John R. Meyer, "Investment, Liquidity, and Monetary Policy," both in *Impacts of Monetary Policy*, prepared for the Commission on Money and Credit, 1963.

⁶The two leading theories of interest rate structure are the "expectations" theory and the "liquidity preference" theory. According to the expectations theory, maturity choices of borrowers and lenders are determined by their expectations as to future rates, and the behavior of market participants will cause long-term rates to equalize with the average of short-term rates expected over the future. The liquidity preference theory, on the other hand, stresses that interest is paid to compensate holders of securities because securities entail a risk of loss in capital value and a cost of portfolio administration. Thus interest rates tend to be high on the least liquid securities and low on those nearest to money in character. For results of recent research on term structure theory, see the references cited in Harry G. Johnson, "Major Issues in Monetary and Fiscal Policies," *Federal Reserve Bulletin*, November 1964, p. 1413.

⁷There are many studies of the relationship between interest rates and economic activity, too numerous to list here. Helpful references in this connection are *Impacts of Monetary Policy and Stabilization Policies*, both prepared for the Commission on Money and Credit, 1963.

total volume of short-term Government securities held by the nonbank public.⁸ By this measure debt management during 1964 was somewhat restrictive in its impact on the liquidity of the economy. Nonbank holdings of short-term marketable securities declined from about \$48 billion in late 1963 to \$46.4 billion in December 1964. The January advance refunding contributed to a further decline, but this decline was more than offset by increases in short-term Treasury bills during the month.

Recent changes in the structure of yields are summarized in the chart below. December 11, 1964 is representative of the yield structure before the announcement of the January advance refunding but after the increase in the Federal Reserve discount rate on November 24, 1964. The curve for January 14, 1965 is shown to indicate the yield structure after the recent refunding operation.



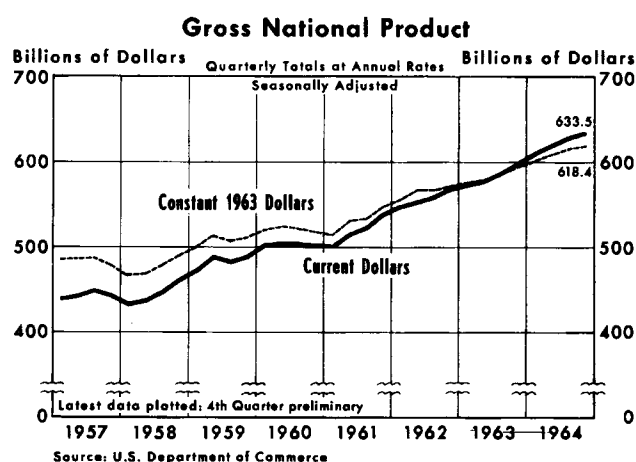
The rate structure was altered to some extent by the January refunding; the amount of the "twist" was small, however. The impact of the refunding may have been offset by (1) other Treasury actions, (2) actions of private investors, (3) actions of the monetary authority or (4) the over-all interaction of seasonal factors. It is also possible that the magnitude of the operation was not large enough to have a substantial impact on the structure of interest rates.

⁸The series referred to here includes marketable securities maturing within one year. The "nonbank public" excludes Government investment accounts, Federal Reserve Banks, domestic commercial and mutual savings banks, and savings and loan associations.

Business Developments

Business activity rose sharply in December and January, rebounding from levels in October and November which had been slightly depressed because of strikes in the strategic auto industry. Total employment, retail sales, and industrial production all rose to levels surpassing September. Largely because of December gains, the increase in gross national product from the third to the fourth quarter was \$5.1 billion. The lull in activity during the fall caused the rise to be more moderate than previous quarterly changes in the year.

GNP in the fourth quarter of 1964 was \$633.5 billion, up 5.8 per cent from a year earlier. Real product, i.e., GNP adjusted for price changes, was 3.9 per cent above a year earlier.



Most of the increase of GNP from the third to the fourth quarter reflected expansion of inventories. Producers apparently tried to regain production lost because of work stoppages earlier in the fall; also, there was some precautionary stockpiling of steel. Inventories in the fourth quarter were accumulated at a \$6.0 billion annual rate, well above the \$2.8 billion rate in the third quarter but below the \$6.4 billion rate a year earlier.

Industrial production rose to 137.0 per cent of the 1957-59 average in December from 134.8 per cent in November. The December level of production was 8 per cent above a year earlier. Gains from November to December were largest in the auto industry. Preliminary data for January indicate that production continued to increase.

Retail sales, particularly of durable goods, rose sharply after November. Resumption of automobile production gave consumers an opportunity to increase their purchases. It was this component of retail sales that had pulled down the total from September to

(Continued on Page 16)

Trends in Government Expenditures

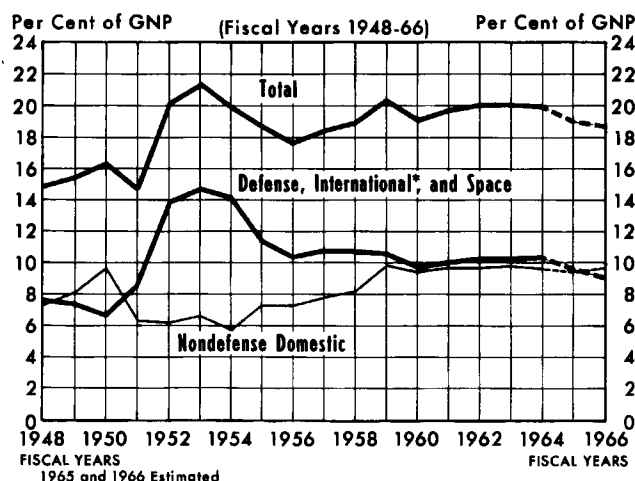
THE FEDERAL BUDGET for fiscal 1966 was presented to Congress on January 25. The budget provides, on a consolidated cash basis, for an increase of Government expenditures to \$127.4 billion, up 4.9 per cent from fiscal 1965. Total cash receipts are estimated at \$123.5 billion, 5.2 per cent higher than 1965.

This article summarizes trends in government expenditures since 1948. All measures of government finances referred to in the text and charts are on a *consolidated cash basis*.

Relative to gross national product, it is estimated that total Federal expenditures (cash budget) will decline from 20 per cent in fiscal 1964 to about 19 per cent in 1965 and 1966. Expenditures were equal to about 15.5 per cent of GNP in 1948-51, 18 per cent in 1956, and 20 per cent in 1962-64.

Expenditures for national defense, international affairs, and space are expected to decline from an amount equaling 10 per cent of GNP in 1964 to 9 per cent in 1966. Federal nondefense domestic expenditures relative to GNP are expected to remain at about 9.5 per cent, about the same as since 1959. In

Federal Government Expenditures

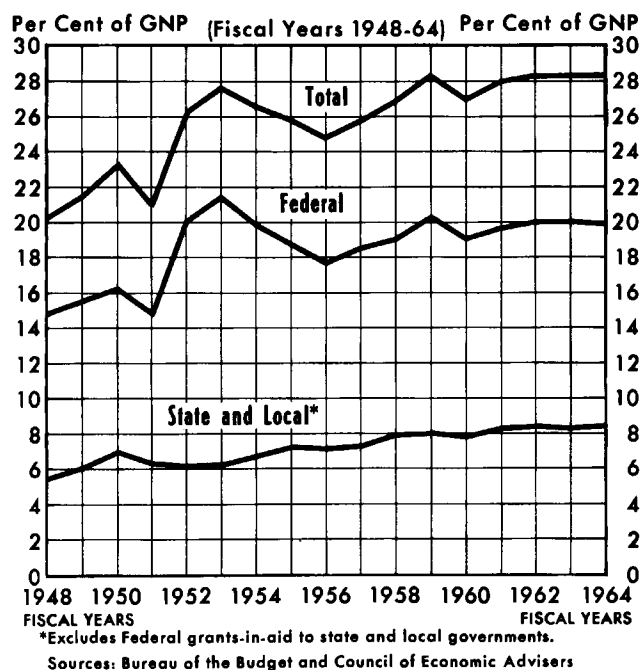


1951-54 these expenditures averaged about 6 per cent when related to GNP.

State and local expenditures¹ increased rather steadily from an amount equal to 5.5 per cent of GNP in 1948 to about 8.5 per cent in 1964. If recent trends continue, state and local government spending may be at a level equal to about 9 per cent of GNP in fiscal 1966.

Adding together the expenditures of governments at all levels, total government expenditures relative to GNP in 1964 were about 28.5 per cent. Approximately the same percentage seems likely to continue in fiscal 1966. These total government expenditures rose from amounts averaging 21.5 per cent of GNP in 1948-51 to 25 per cent in 1956 and on up to the present 28.5 per cent level.

Government Expenditures

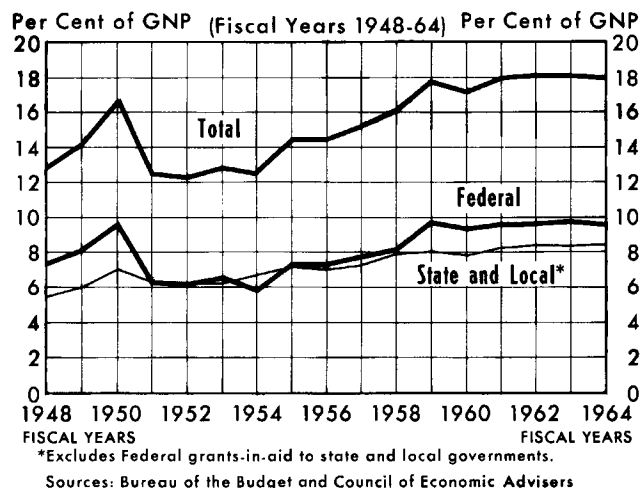


¹Excluding Federal grants-in-aid to state and local governments.

Government expenditures other than for defense, international, and space have been trending upward. Such expenditures for all governments combined were equal to 13 per cent of GNP in 1948 and 12.5 per cent in 1951-54. They then rose to 18 per cent in 1959-64. This percentage appears to be likely in fiscal 1966.

The course of the relation of government expenditures to GNP in fiscal 1965 and 1966 is dependent upon the assumptions which were made in the budget regarding GNP and Federal expenditures. If realized GNP should be less than anticipated, Federal expenditures would probably be somewhat larger than anticipated, and the relation of expenditures to total product would be greater. Also, revenues would be less than estimated, and the cash deficit would be greater than forecast.

Nondefense Domestic Government Expenditures



Federal Debt Lengthened—(Continued from Page 14)

November. Total retail sales in December were up at a 10 per cent per year rate from September, and it appears that retail sales remained at a high level or increased in January.

Employment conditions continued to improve. Payroll employment was up at a 4.4 per cent annual rate from September to December. During the past year total employment increased 2.4 per cent and payroll employment 3.2 per cent. These increases were significantly greater than the estimated increase in the number of people of working age. The number of people aged 20 to 64 increased 1.1 per cent, and the number aged 18 to 64 is estimated to have grown 1.4 per cent. Employment has increased more rapidly than population of labor force age over the past year; it has also increased more rapidly since 1960 and over the longer period since 1948.⁹

Monetary Developments

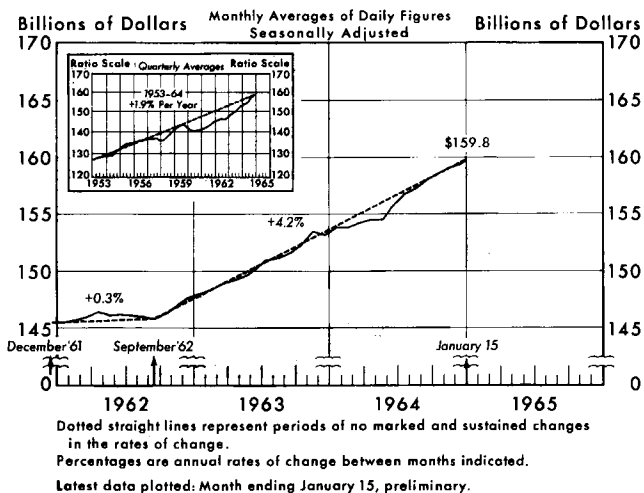
Continued expansion of bank reserves and money in December and January accompanied the rise in business activity. The rates of expansion from October to the month ending January 15 were about the same as since September 1962, the date of the last marked and sustained change in the rate of expansion of the money supply.

Member bank reserves rose at an annual rate of 4.4 per cent from October to the month ending January

15, compared with a 4.1 per cent rate since September 1962. Reserves available for private demand deposits, however, decreased at a 0.6 per cent rate from October, reflecting a rise in reserves required to support Government demand deposits, net interbank deposits, and time deposits.

Money supply rose at a 3.6 per cent annual rate from October to the month ending January 15, compared with a 4.2 per cent rate since September 1962.

Money Supply Dollar Amounts



The rise in money from October to the month ending January 15 consisted of an increase of demand deposits of \$800 million and a \$400 million increase in currency.

⁹ For further discussion of these trends, see "Recent Employment Trends," in the October 1964 issue of this Review.