

FEDERAL RESERVE BANK OF ST. LOUIS

February 1968



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Review

Volume 50

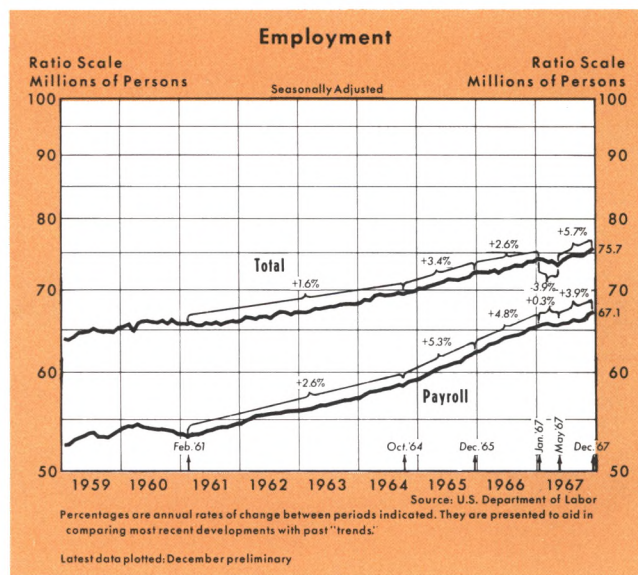
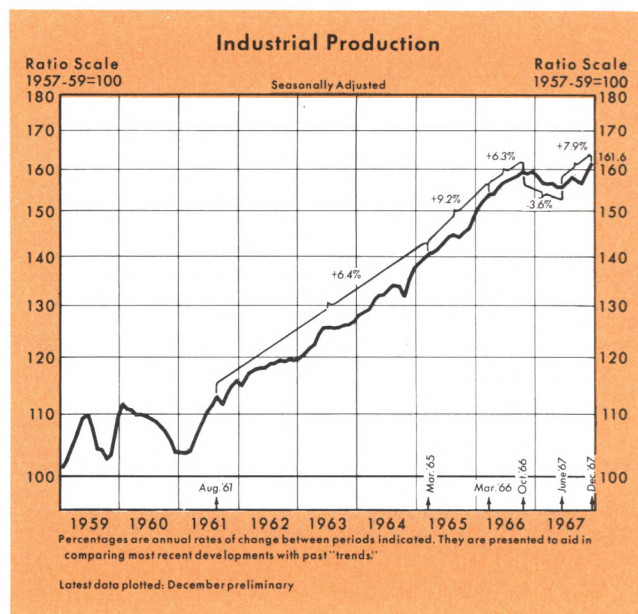
Number 2

Production, Income, and Spending Accelerate

FOLLOWING A period of mixed performance in the fall, measures of aggregate economic activity have recently indicated strong expansion. Production has increased sharply since the major strikes ended. Private demand has risen, reflecting the recent acceleration of employment and income. The rate of increase of Government spending, although moderated from that of recent periods, has remained well above the trend rate.

Production Gaining Momentum

Following a period of strike activity which cut sharply into the recovery of production early in the fall, industrial production increased substantially in November and December. On balance production increased at an 8 per cent annual rate from June to December, with durable products and materials accounting for most of the rapid increase late in the year. Greater automobile output contributed significantly to the growth of production late in the year, and large expansion was also experienced in the production of steel and business equipment. Increased steel production reflects some stockpiling in anticipation of strikes next summer in that industry.



Employment and Income Growing

Employment increased rapidly late in the year and rose at a 6 per cent rate from the spring of 1967 to the end of the year. Employment in manufacturing, which had declined for most of the year, increased sharply following settlement of the major strikes. Employment in contract construction and wholesale and retail trade showed significant increases from last spring.

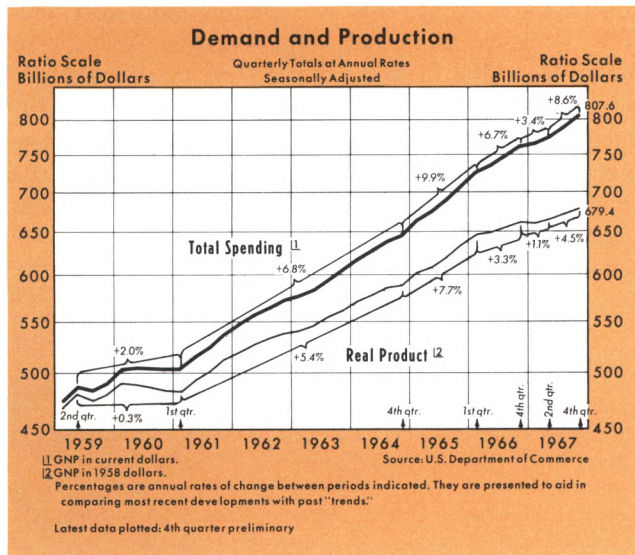
Personal income increased rapidly in the last two months of the year and has shown an 8 per cent rate of increase since spring. This compares with a 5 per cent rate of growth in the early part of the year. The potentially strong stimulative effect on spending of the acceleration in income was not fully realized because, relative to past experience, the proportion of after-tax income directed into savings remained high throughout the year. Such sustained behavior on the part of consumers cannot easily be explained, but suggests a cautious outlook due to uncertainty about future prices, Government policy, and international developments.

The disposition of savings showed some change late in the year, as is evidenced by a moderated rate of increase in time deposits at commercial banks. As

market rates of interest rose to high levels relative to regulated ceiling rates on time deposits, savers, seeking the highest return on their money, tended to increase the direct placement of their funds in the market. Although few banks have actually experienced declines in time deposits, rates of growth have slowed. Increasing direct placement has been becoming more evident as growth rates of large negotiable certificates of deposits, savings deposits, and small savings certificates have slowed considerably from earlier in the year.

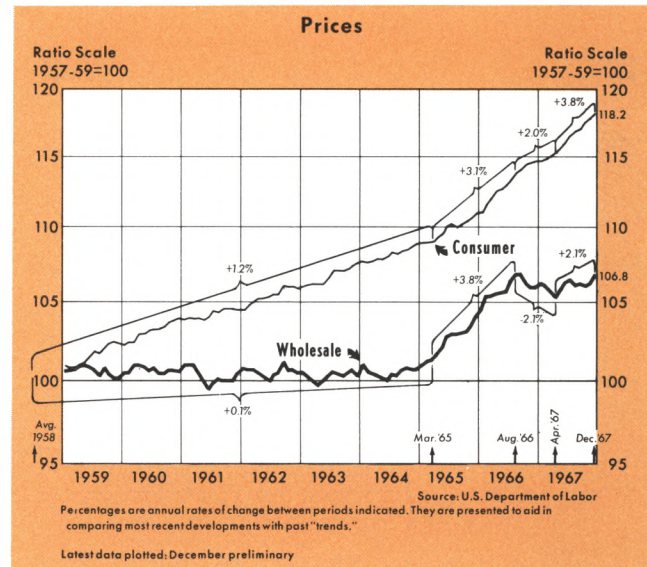
Total Demand Accelerating

The dollar value of goods and services produced in the economy increased at a 9 per cent annual rate in the second half of 1967, compared with a 3.4 per cent rate of increase in the first half. Expanded production



accounted for over half of the accelerated rate, rising at a 5 per cent rate after remaining about unchanged during the first half of the year. Price increases, accounting for the rest of the increased rate, also quickened from mid-year. The general price level, which had risen at a 2.3 per cent annual rate in the first half, accelerated to a 4.0 per cent rate of increase in the last six months of the year.

The acceleration of total demand was greatest in the business sector. Investment in inventory accumulation, which had declined from an \$18.5 billion annual rate in the fourth quarter of 1966 to a \$0.5 billion rate in the second quarter of 1967, rose to about a \$6 billion annual rate in the second half of the year and became a strong expansionary force in the economy. Residential construction increased rapidly through the year after declining during most of 1966. Housing starts totaled 1.3 million units during the year, below the level of

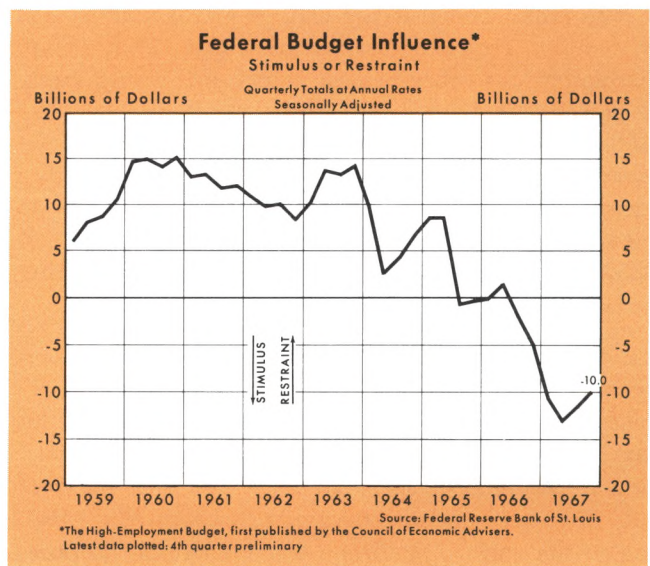


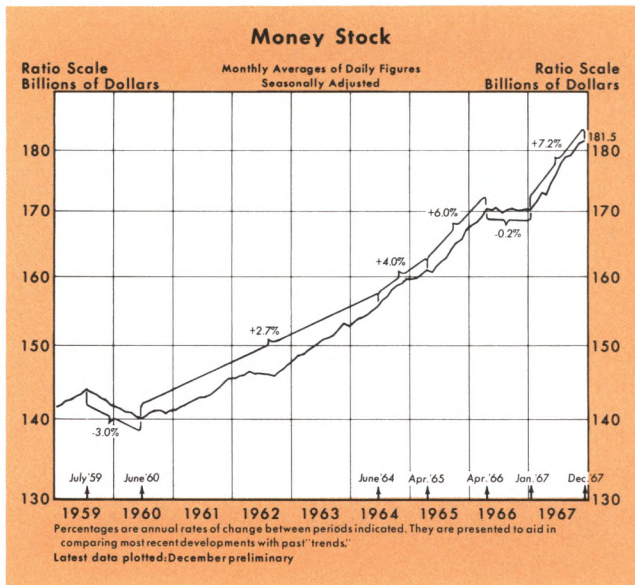
1965 but significantly above the depressed 1.17 million level of 1966.

Consumer spending for durables increased late in the year. Retail sales increased at a 3 per cent rate on balance from May to December, compared with a 5.1 per cent rate of increase from December 1966 to May. The moderated rate over the period was due primarily to sharp declines in sales of durables during the summer and early fall, as strikes affected consumer income and availability of goods. Sales of automobiles and household appliances increased late in the year, as automobiles became more readily available following the strikes and increased residential construction resulted in increased demand for household furnishings.

Government Actions Stimulative

Monetary actions were a major factor contributing





to the acceleration of demand in the second half of 1967. Total reserves of member banks, adjusted for reserve requirement changes, increased at a 10 per cent rate from last January following little change from April 1966 to January. The nation's money stock, defined as private demand deposits and currency in the hands of the public, increased at a 7 per cent rate from last January to the end of the year, compared with no net change over the previous nine months.

Reserve requirements against demand deposits over \$5 million were raised by the Federal Reserve, effective in January. For reserve city banks the proportion of demand deposits over \$5 million required to be held in reserve was increased from 16.5 per cent to 17 per cent, effective January 11. For all other banks the requirement was increased from 12 per cent to 12.5 per cent, effective on January 18.

The initial effect of the change in regulations was to increase required reserves by about \$550 million. Assuming no further System action, this would imply a decrease in bank credit and deposits of over \$3.5 billion. Such a contraction did not come about, however, as System Open Market purchases and other factors contributed a similar amount of reserves to member banks. The major effect was to transfer about \$550 million of earning assets from large member banks to the Reserve Banks.

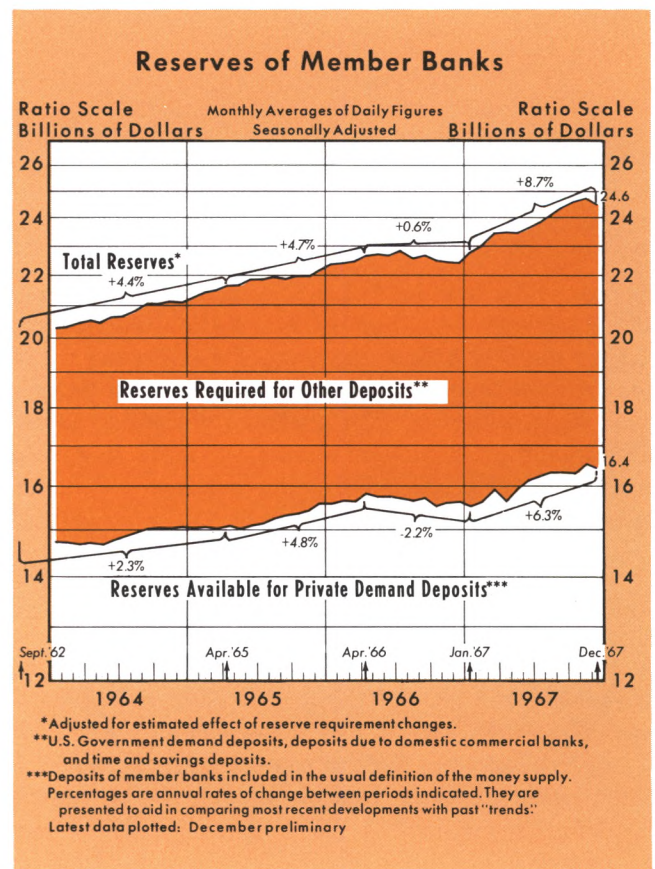
Growth of demand originating in the Government sector moderated in the second half as growth in defense spending slowed. Government purchases of goods and services increased at an 8 per cent annual rate in the second half, compared with a 17 per cent rate of increase in the previous half year. After slowing in the spring, purchases for nondefense purposes

accelerated through the rest of the year. Spending by state and local governments increased at a 10 per cent annual rate in the second half, slightly less than in the previous half year.

As measured by the high employment budget, the stimulative force of fiscal actions changed little in the second half. Adjusted for changes in economic activity, Federal expenditures exceeded receipts by about \$11 billion, approximately the same as in the first half of the year but up from \$3.4 billion in the second half of 1966.

Summary

Since late spring economic activity has risen at a rapid rate, with marked acceleration since October. Part of the increase in late fall and early winter was a result of production delayed by strikes, but additional underlying strength is becoming more apparent. Both monetary and fiscal actions of the Government have been the factors contributing to a vigorous growth in spending. Renewed investment in inventory and business plant and equipment suggests that business expectations of future demand have been revised upward. The continued expansion of demand at recent rates is probably unsustainable if balanced economic growth is to be achieved.



Operations of the Federal Reserve Bank of St. Louis—1967

THE FEDERAL RESERVE BANK of St. Louis, in addition to responsibilities involving national monetary policy, performs commercial bank supervisory functions and a variety of services for the public, the United States Government, and commercial banks. Analyses of economic developments providing background information on monetary actions are frequently presented in this *Review*, with an analysis of the entire year 1967 contained in the December issue. This report of the past year's operations concentrates on the service and other functions of the bank.

The activities of the Federal Reserve System are carried out through twelve Federal Reserve Banks and their twenty-four branches and through central coordination by the Board of Governors in Washington. Following the Federal Reserve Act of 1913, creating the Federal Reserve System, the country was divided into twelve Federal Reserve Districts. Each of these districts contains a Federal Reserve Bank, and ten of the Banks have one or more branches. The territory of the Eighth Federal Reserve District includes all of Arkansas and portions of Illinois, Indiana, Kentucky, Mississippi, Missouri, and Tennessee. In addition to the head office, the Federal Reserve Bank of St. Louis maintains branch offices in Little Rock, Louisville, and Memphis. The transactions of these four offices are primarily with banks and businesses in the zone territories of the particular office.

Service Operations

Among its service operations the four offices of this bank furnish currency for circulation, maintain facilities for the collection and clearing of checks, handle

the legal reserve accounts of member banks, and act as fiscal agent of the Government. Most operations at the bank's offices increased in 1967, reflecting growth

VOLUME OF OPERATIONS ¹			
	Dollar Amount (Millions)		Per Cent Change 1966-67
	1967	1966	
Coin counted	\$ 48.0	\$ 39.5	+21.5
Currency counted	1,514.7	1,508.9	+ 0.4
Checks collected ²	120,860.0	113,825.9	+ 6.2
Noncash collection items	459.0	626.0	-26.7
Transfers of funds	147,057.5	135,844.9	+ 8.3
U.S. Savings Bonds handled ³	626.8	669.5	- 6.4
Other Government securities			
handled ³	16,232.8	17,168.1	- 5.5
U.S. Government coupons paid ..	166.9	154.6	+ 8.0
Loans to member banks—			
daily average outstanding	5.9	31.8	-81.5
	Number (Thousands)		
	1967	1966	
Coin counted	445,359	387,269	+15.0
Currency counted	217,358	224,341	- 3.1
Checks collected ²	286,069	266,672	+ 7.3
Noncash Collection items	845	835	+ 1.2
Transfers of funds	247	214	+15.4
U.S. Savings Bonds handled ³	9,864	9,270	+ 6.4
Other Government securities			
handled ³	603	665	- 9.3
U.S. Government coupons paid .	759	755	+ 0.5

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

²Excludes Government checks and money orders.

³Issued, exchanged, and redeemed.

in economic activity in the Central Mississippi Valley.¹

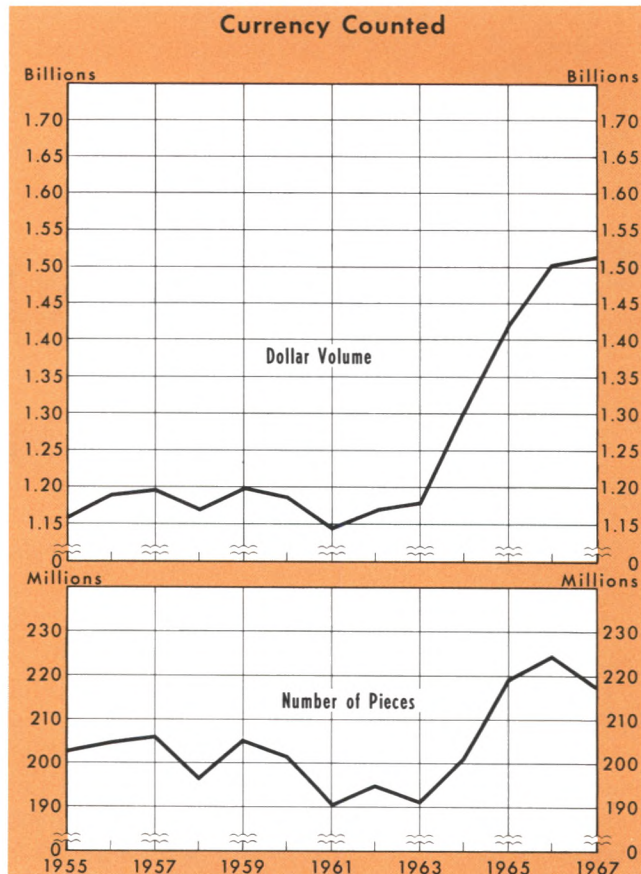
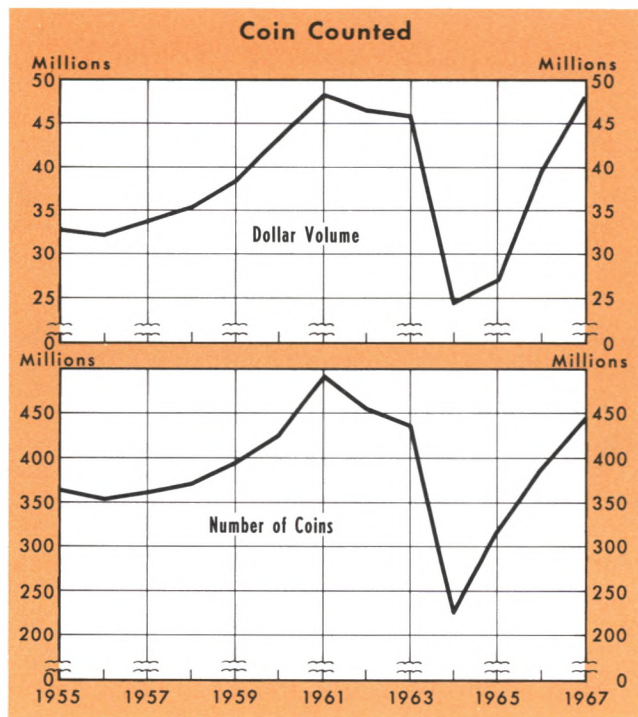
Money Operations

Supplying coin and currency to commercial banks, and thereby to the general public, is carried out through the Money Department at each of the four offices of this bank. Member banks obtain coin and currency from Reserve Banks by withdrawals from their accounts at the Reserve Banks. Nonmember banks may obtain coin and currency from member banks or directly from Reserve Banks, with charges made to a designated member bank's reserve account. When banks receive an excess of coin and currency from their customers, it is deposited in the Federal Reserve Bank, where it is sorted and counted and the usable money is redistributed.

Coin handling in 1967 continued the sharp rise experienced in the previous two years. The number of pieces counted rose from a low of 227 million in 1964 (reflecting a severe coin shortage) to 445 million in 1967, an average annual increase of 25 per cent. Meanwhile, the dollar value increased at a similar rapid rate, rising from \$24.5 million to \$48 million. Following the 1961-64 decline in coin operations, both number and dollar value of coins handled in 1967 approached the 1961 peak when 490 million coins valued at \$48.3 million were counted.

The dollar value of currency handled during 1967

¹For an analysis of economic activity of the region during 1967, see the January 1968 issue of this Review.



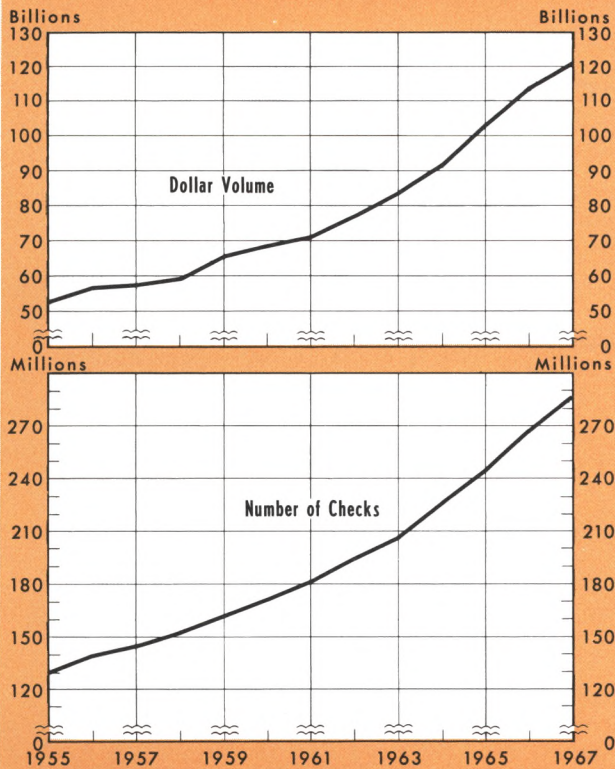
was \$1.5 billion, about unchanged from the previous year. The value of currency counted increased sharply from 1963 to 1966, following a period of virtually no change during the previous eight years. The number of pieces counted totaled 217 million in 1967, 3 per cent less than a year earlier.

Check Collections

Federal Reserve Banks collect checks and provide a mechanism through which commercial banks settle for the checks collected. This facilitates the use of demand deposits by individuals, businesses, and governments in making payments. The four offices of this bank receive checks from district member banks, other Federal Reserve offices, and Government agencies for collection. 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 received are drawn on banks in the Eighth District that remit at par,² par-remitting

²All 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. National banks and state member banks must remit at par as a condition of membership. In addition, most state non-member banks agree to remit at par.

Checks Collected*



banks in other districts, Federal Reserve Banks, and the United States Treasury.

The number of checks passing through the four offices of this bank rose from 267 million in 1966 to 286 million in 1967, an increase of 7.3 per cent. The dollar value of these collections rose 6.2 per cent to \$121 billion.

The Little Rock branch, after moving into a newly-constructed building last year, installed high-speed computers for check processing operations. Following this installation, all offices now employ high-speed electronic check processing equipment.

A major step toward completely automated check handing occurred with the announcement that, beginning September 1, 1967, checks cleared through any Federal Reserve Bank must have the routing symbol-transit number of the bank on which it is drawn imprinted in MICR (Magnetic Ink Character Recognition) encoding.

Since the September deadline if the routing symbol-transit number does not appear in magnetic ink on the check prior to receipt by the Federal Reserve Bank, it may be treated as a noncash item. Noncash items are not processed as quickly because special

handling is required. Also, the sending bank does not receive credit for it until the Federal Reserve Bank receives payment from the bank on which the check was drawn, resulting in a longer collection time.

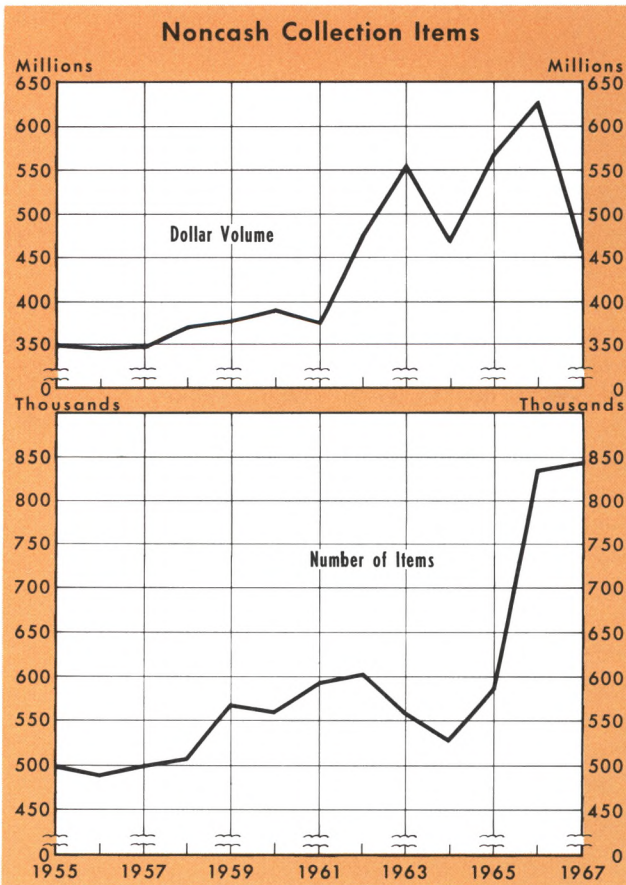
Following the effective date of the encoding requirements, the number of nonconforming items in the St. Louis district has dropped sharply. From an average of 6.4 per cent of the checks received at the St. Louis bank and its branches in the spring of 1967, the number of checks not bearing the routing symbol-transit number had dropped to less than 0.2 per cent by the close of the year.

Noncash Collections

In addition to maintaining facilities for check collections, Federal Reserve Banks handle numerous other items for collection. Referred to as noncash collections, these include drafts, promissory notes, bonds and bond coupons, and various other documents. The combined dollar value of these collections was down 27 per cent from 1966 to 1967, although the number of items rose 1 per cent.

Transfers of Funds

Wire transfers of funds are largely movements



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General American Life Insurance Company
St. Louis, Missouri

Deputy Chairman of the Board

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Broadbent Hybrid Seed Co.
Cadiz, Kentucky

BRADFORD BRETT, President, The First National Bank
of Mexico, Mexico, Missouri

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

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

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

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

SHERWOOD J. SMITH, Vice President, Whirlpool Corpora-
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MARK TOWNSEND, Chairman of the Board
Townsend Lumber Company, Inc.
Stuttgart, Arkansas

Member, Federal Advisory Council

JOHN FOX, Chairman of the Board
and Chief Executive Officer
Mercantile Trust Company National Association
St. Louis, Missouri

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Worthen Bank & Trust Company, Little Rock,
Arkansas

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

ELLIS E. SHELTON, President, The First National Bank
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CAREY V. STABLER, President, Little Rock University,
Little Rock, Arkansas

WAYNE A. STONE, President, Simmons First National
Bank of Pine Bluff, Pine Bluff, Arkansas

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MICHAEL T. MORIARTY, *Assistant Vice President*

JOHN K. WARD, *Cashier*

JOHN W. DRUELINGER, *Assistant Cashier*

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Kentucky

PAUL CHASE, President, The Bedford National Bank,
Bedford, Indiana

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

C. HUNTER GREEN, Vice President, Southern Bell Tele-
phone and Telegraph Company, Louisville, Kentucky

JOHN H. HARDWICK, Chairman and Chief Executive
Officer, The Louisville Trust Company, Louisville,
Kentucky

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

HARRY M. YOUNG, JR., Farmer, Herndon, Kentucky

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JAMES E. CONRAD, *Assistant Vice President*

LOUIS A. NELSON, *Cashier*

ROBERT E. HARLOW, *Assistant Cashier*

MEMPHIS BRANCH

Directors

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

WILLIAM L. GILES, President, Mississippi State Univer-
sity, State College, Mississippi

W. W. HOLLOWELL, President, The First National Bank
of Greenville, Greenville, Mississippi

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

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

J. J. WHITE, President, Helena National Bank, Helena,
Arkansas

JAMES S. WILLIAMS, Assistant Vice President, American
Greetings Corporation, Osceola, Arkansas

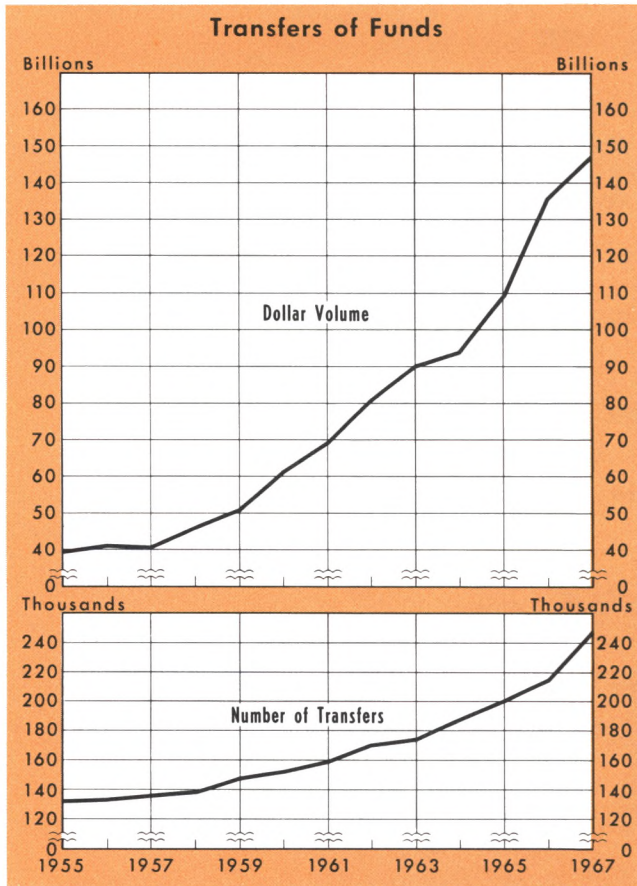
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BENJAMIN B. MONAGHAN, *Cashier*

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

JOSEPH P. GARBARINI, *Assistant Cashier*



of member bank balances between Federal Reserve Banks. Such transfers result primarily from Federal funds transactions, check collection settlements, and transfers in connection with transactions in U. S. Treasury obligations. In recent years the volume of such transfers has risen sharply. This bank participated in 247 thousand such transfers in 1967, up 15 per cent from the previous year. The dollar value, totaling \$147 billion, was up 8 per cent. Since 1957 the number of these transfers has risen at an average annual rate of 6 per cent, while dollar volume has risen 14 per cent yearly.

Fiscal Agency Operations

Each Federal Reserve Bank acts as depository and fiscal agent of the United States Government. The Reserve Banks carry the principal checking accounts of the Treasury, issue and redeem Government securities, administer the Treasury tax and loan accounts of commercial banks, and perform various other Government financial duties.

Acting as fiscal agent, the four offices of this bank in 1967 issued, exchanged, and redeemed 9.9 million United States Savings Bonds valued at \$627 million. The number of bonds handled rose 6.4 per cent from

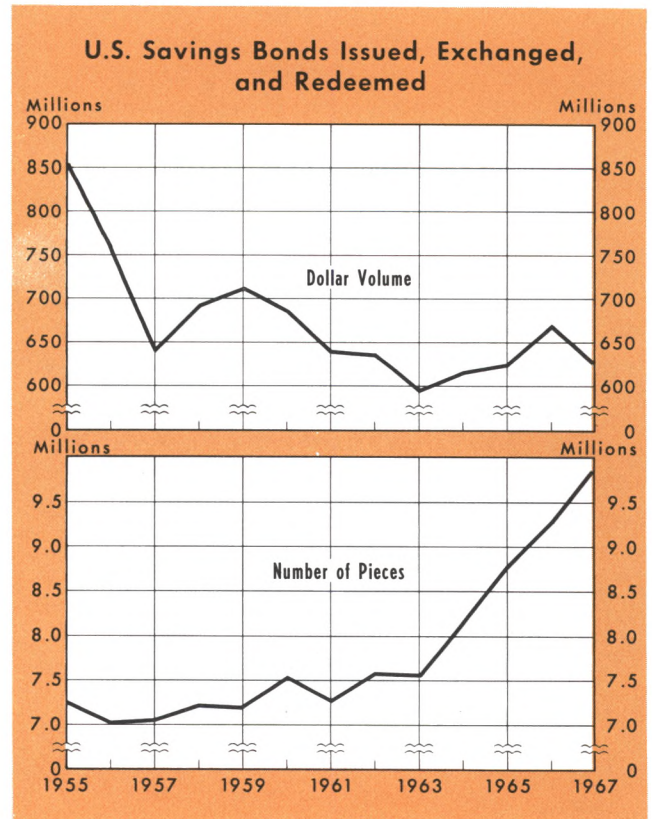
1966 to 1967, while dollar value declined 6.4 per cent. Other Government securities issued, serviced, and retired totaled 603 thousand, which was 9.3 per cent below a year earlier, and dollar value was down 5.5 per cent to \$16.2 billion.

Other Operations

Lending and the Discount Rate

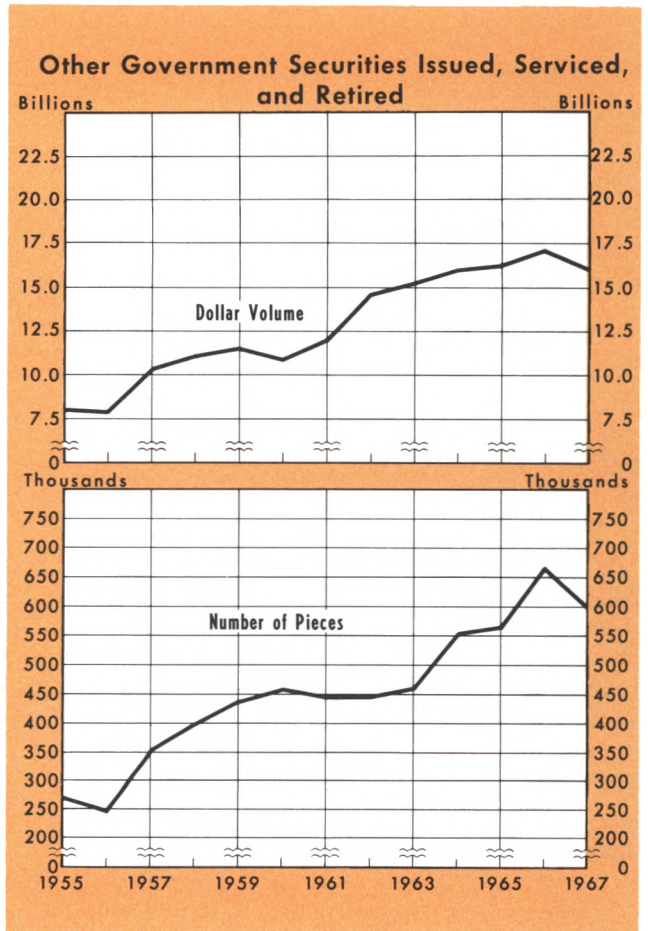
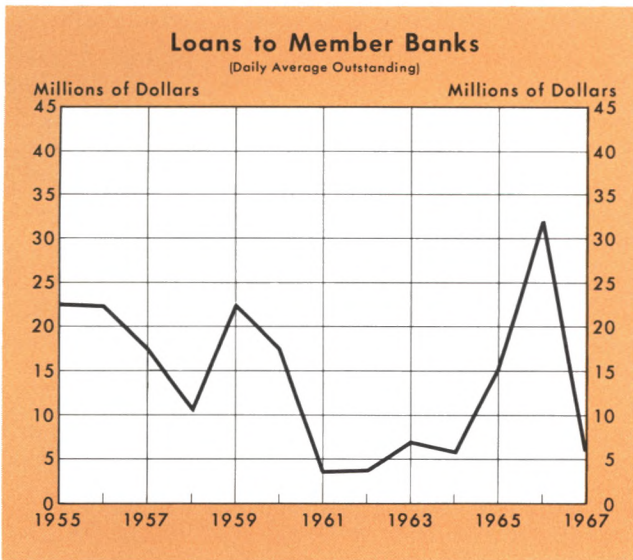
Member banks may borrow from the Federal Reserve Banks either through discounts of eligible paper, or through advances on their own promissory notes secured by eligible paper, Government securities, or other collateral. The custom has developed of referring to both types of Reserve Bank lending to member banks as discounting, and the interest charge applicable to such lending is known as the discount rate. The discount rate is established by the bank's directors, subject to review and determination by the Board of Governors. The rate was adjusted twice during 1967, being reduced from 4½ to 4 per cent in April and increased to 4½ per cent in November.

Borrowing by member banks from the Federal Reserve Bank of St. Louis during 1967 dropped sharply from year-earlier levels. Average credit outstanding to member banks in the Eighth District was \$6 million, down from \$32 million in 1966, but slightly above the average outstanding during the 1961-64 period.



adequacy of its management; to ascertain whether the bank is complying with applicable laws and regulations; to evaluate the adequacy of its accounting methods, records system, and internal safeguards; and to indicate the bank's future operating prospects. Examinations were made of all state member banks in the district in 1967.

Other supervisory functions of the Federal Reserve System include admission of state banks to membership in the System; approval of the establishment of branches and merger or absorption of other banks by state member banks; and permission to establish bank

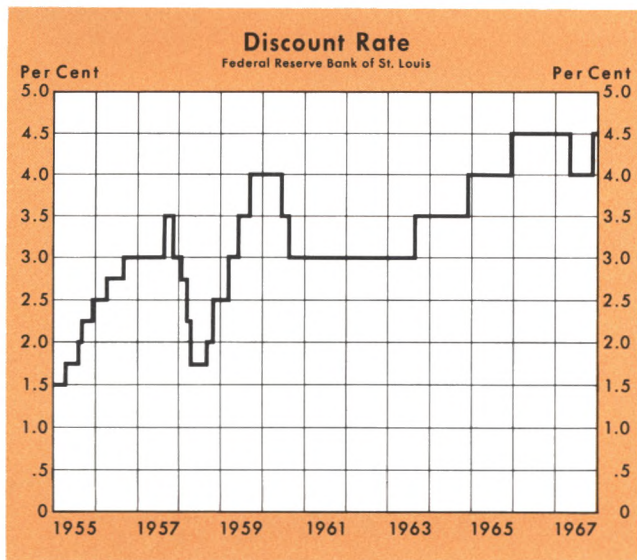


Supervision and Examination

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 state member banks. The major objectives of these examinations are to develop information that will disclose the current financial condition of each bank and

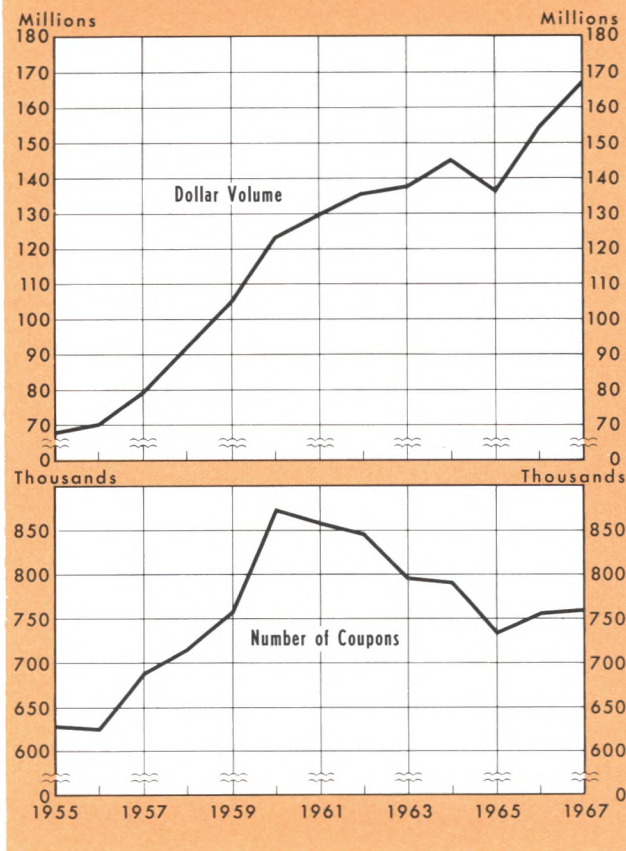


holding companies and for such companies to acquire stock in banks. Much of the fieldwork involved in such supervisory functions is conducted at the Reserve Banks. In addition, authority to approve domestic branches of state member banks and certain other supervisory functions is delegated to Reserve Banks.

Research

Research operations at the Federal Reserve Bank of St. Louis are directed toward national business and financial problems. Analyses are conducted of both

U.S. Government Interest Coupons Paid



current economic problems and those of a more basic longer run nature. Also, efforts are made to measure and interpret economic developments in the Eighth Federal Reserve District. Such analyses are used to assist the President of the Bank 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 addition, the research staff engages in activities to provide economic information to the public. This is accomplished through publication of the monthly *Review* and by various releases of economic data. These releases are made available to the public without charge and are listed on page 20 in this *Review*.

Statements

As in most other recent years, the financial statements of the Federal Reserve Bank of St. Louis showed gains in 1967. Total assets were \$2.85 billion at the end of 1967, an increase of 9 per cent from a year earlier. A substantial rise in holdings of U. S. Government securities during the year more than offset declines in gold certificate reserves and discounts to member banks.

Holdings of U. S. Government securities result from the operations of the System Open Market Account. These open market operations, which are the major instrument of monetary policy, are authorized by the Federal Open Market Committee and are undertaken at the Federal Reserve Bank of New York by the Committee's agent. Although the securities remain at the New York bank, each Reserve Bank participates in the holdings and earnings of the System Account. At the end of 1967 holdings of U. S. Government Securities allocated to the Federal Reserve Bank of St. Louis

COMPARATIVE PROFIT AND LOSS STATEMENT

thousands of dollars

	1967	1966
Total earnings	\$ 77,024	\$ 68,176
Net expenses	12,868	11,809
Current net earnings	64,156	56,367
Net additions (+) or deductions (-)	+ 56	- 44
Net earnings before payments to U.S. Treasury	\$ 64,212	\$ 56,323
Distribution of Net Earnings:		
Dividends	\$ 1,208	\$ 1,168
Interest on Federal Reserve notes	62,402	54,536
Transferred to Surplus	602	619
Total	\$ 64,212	\$ 56,323

COMPARATIVE STATEMENT OF CONDITION

thousands of dollars

	December 31, 1967	December 31, 1966
Assets		
Gold certificate reserves	\$ 437,041	\$ 534,492
Federal Reserve notes of other banks	34,379	29,701
Other cash	33,588	31,278
Discounts and advances	1,100	2,400
U.S. Government securities	1,768,480	1,490,875
Uncollected items	500,594	479,437
Other assets	76,250	50,178
Total assets	\$ 2,851,432	\$ 2,618,361
Liabilities and Capital Accounts		
Federal Reserve notes (net)	\$ 1,569,186	\$ 1,471,034
Deposits:		
Member banks-reserve accounts	726,684	727,057
U.S. Treasurer-general account	70,721	599
Other	39,312	11,814
Deferred availability cash items	394,394	360,611
Other liabilities and accrued dividends	10,435	7,748
Total capital accounts	40,700	39,498
Total liabilities and capital accounts	\$ 2,851,432	\$ 2,618,361

amounted to 3.6 per cent of System-wide holdings.

Net earnings before payments to the United States Treasury totaled \$64 million in 1967, up 14 per cent from 1966. Dividends to member banks, set by law at 6 per cent of paid-in capital, were up 3.4 per cent.

After dividends and increases in surplus to equal paid-in capital, net earnings are set aside for the U. S. Treasury as interest on Federal Reserve notes. Such payments totalled \$62 million in 1967, up 14 per cent from a year earlier.

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Changing Sources Of Farm Credit

*Speech by Darryl R. Francis, President,
Federal Reserve Bank of St. Louis,
At Chemical Dealers' "Independence Day" Meeting
Tan-Tar-A, Lake of the Ozarks,
Osage Beach, Missouri, December 13, 1967*

I HAVE been requested to discuss the changing sources of farm credit and means whereby businessmen can influence the paying habits of farmers. It is to the first item, namely, the changing sources of farm credit, that I would like to direct most of this discussion. Then, based on some conclusions relative to farm credit sources and the changing structural pattern of agriculture, I shall make some concluding comments on farm debt repayment.

At the beginning I might say that outside credit has played a relatively minor role in financing our agricultural plant. Most farms have been largely financed internally. Much of the physical capital as land clearing, drainage, fencing, and building was produced on the farm by the farm family. Only in the past few decades has a large portion of farm capital been acquired through off-farm purchases, and many of these capital inputs were covered by savings of the farm family.

Since 1948 credit used by farmers has not exceeded 17 per cent of total farm assets, and in the 6 years prior to 1954 the volume of farm credit outstanding was less than 10 per cent of total farm assets (Table I). In comparison, credit used by manufacturing establishments has accounted for a much greater portion of total assets. During the period 1948 to 1967, inclusive, total liabilities of all manufacturing corporations, excluding newspapers, on the basis of book value never fell below 28 per cent of total assets. Furthermore, in 1967 debt exceeded 40 per cent of the assets of these firms.

Although the spread in debt-to-asset ratios of farms and manufacturing firms remains quite wide, it has declined steadily since 1948. At that time debts totaling 31.2 per cent of assets in manufacturing were 4.3 times the per cent of debts to assets in agriculture. Since then the per cent of debts to assets in both industries has risen steadily. However, the per cent in agriculture rose at a greater rate than in manufactur-

ing, and in 1967 the per cent of debts to assets in manufacturing was only 2.4 times that in agriculture.

Internal financing of agriculture has thus declined substantially since 1948 relative to total farm capital, and credit has played an increasing role in farm capital accumulation.

As implied in the subject of this discussion, farm credit sources are changing. The change, however, has been gradual rather than revolutionary. It is when we view farm credit over the past half century that major

Table I
TOTAL DEBT AS PER CENT OF TOTAL ASSETS
AGRICULTURE AND MANUFACTURING

	A Agriculture	B All Manufacturing Corporations ¹	Ratio of B to A
1948.....	7.3	31.2	4.27
1949.....	8.5	30.2	3.55
1950.....	9.4	28.0	2.98
1951.....	8.6	33.6	3.91
1952.....	8.8	36.1	4.10
1953.....	9.8	36.2	3.69
1954.....	10.5	34.9	3.32
1955.....	10.7	33.9	3.17
1956.....	11.1	35.0	3.15
1957.....	10.9	35.8	3.28
1958.....	11.0	33.9	3.08
1959.....	11.7	33.7	2.88
1960.....	12.2	34.4	2.82
1961.....	12.8	34.2	2.67
1962.....	13.5	35.2	2.61
1963.....	14.4	35.8	2.49
1964.....	15.2	36.1	2.38
1965.....	15.7	37.8	2.41
1966.....	16.3	39.7	2.44
1967.....	17.0	41.1	2.42

¹Data as of the first quarter of each year. Farm assets based on current market value and assets of manufacturing corporations based on book value.

Source: Balance Sheet of Agriculture, USDA; Quarterly Financial Report for Manufacturing Corporations, Federal Trade Commission—Securities and Exchange Commission.

contrasts appear. Significant changes have occurred in both number of competitor groups in the business and the relative portion of farm credit supplied by each group.

Farm Mortgage Credit

Prior to the 1900's, most farm mortgage credit in the United States was supplied by individuals and other noninstitutional sources. A recent study of farm mortgages recorded in Tippecanoe County, Indiana, shows that individuals supplied more than three-fifths of all such credit extended in this county in each of the years 1865-1880, inclusive. In the four years 1865-1868, inclusive, such loans by individuals accounted for more than 90 per cent of the total.¹ Similar results were obtained in a study of farm mortgage credit in Champaign County, Illinois, for the same period. Individuals supplied more than three-fourths of all such credit in this county during the 16-year period.²

Since the turn of the century, a relative decline has occurred in the per cent of farm mortgage credit supplied by noninstitutional lenders. Conversely, the per cent supplied by institutional sources has consistently increased. For example, in 1910 institutional lenders supplied only 25 per cent of the outstanding farm mortgage credit in the nation, while in 1967 the amount supplied had increased to 60 per cent. Despite the recent increase in use of land contracts, which tend to increase seller-financed farm transfers, the per cent of farm mortgage debt held by institutions has remained stable since 1960.

Only two major institutional lender groups, commercial and savings banks and life insurance companies, were in the farm

¹Jay Ladin, "Mortgage Credit in Tippecanoe County, Indiana, 1865-1880," *Agricultural History*, January 1967, pp. 37-43.

²Robert F. Severson, Jr., "The Source of Mortgage Credit for Champaign County, 1865-1880," *Agricultural History*, July 1962, p. 154.

mortgage credit business in 1910 (Table II). With the creation of the Federal Land Banks in 1916 a third major credit supplier entered the field, and in the 1930's the Farmers Home Administration (Farm Security Administration) was created to finance high-risk farm mortgages with Government assistance. The land bank system through sale of bonds provided farmers with another excellent credit pipeline to the nation's financial centers.

Each of the three major groups of financial institutions supplying farm mortgage credit has over the years either held their relative positions or supplied an increasing proportion of the total, except during the Great Depression of the thirties. The Federal Land Banks and life insurance companies, which have better

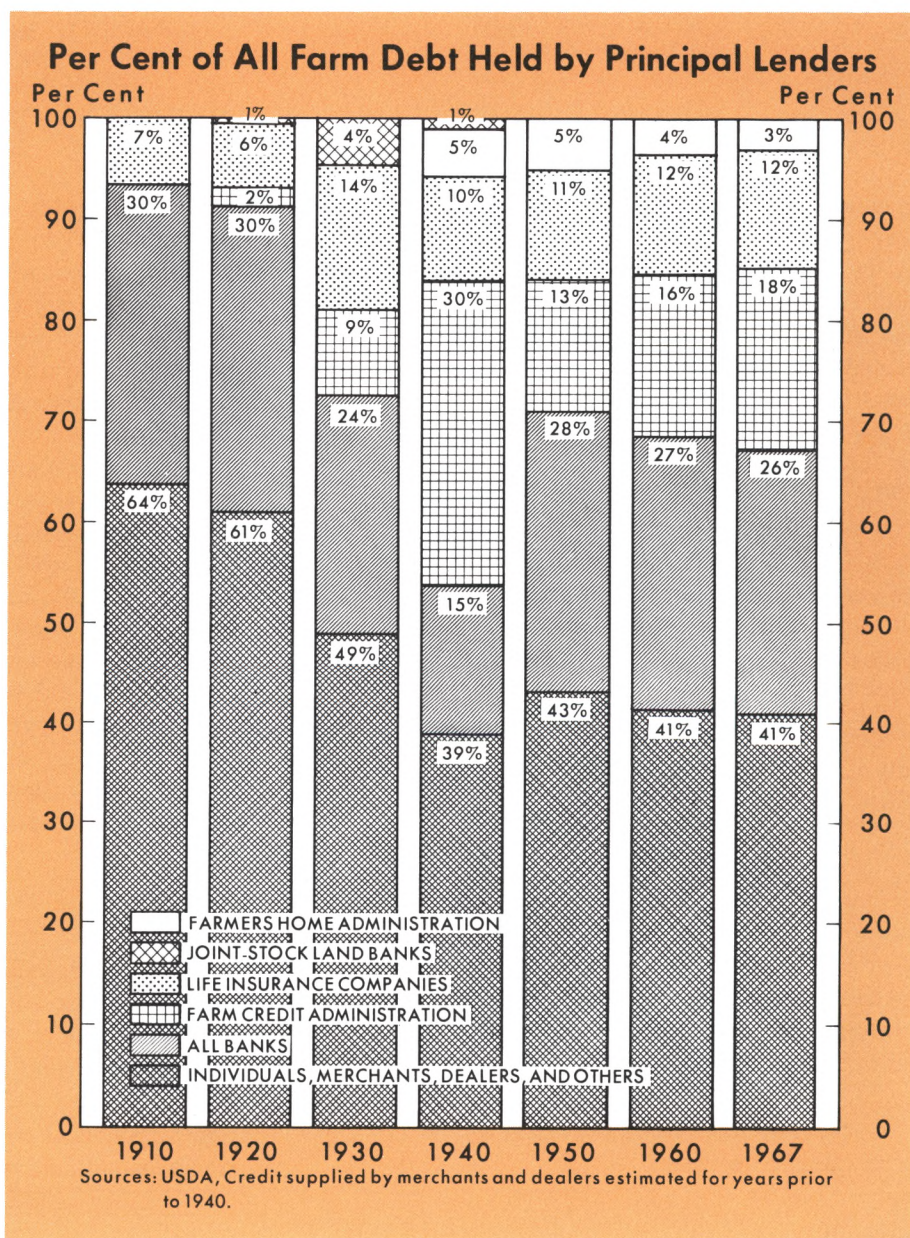


Table II
FARM MORTGAGE DEBT HELD BY PRINCIPAL LENDERS

(Millions of Dollars)

	Federal Land Banks and FFMC	FHA	Life Insurance Companies	Joint-Stock Land Banks	All Operating Banks	Individuals and Others	Total Debt
1910.....	—	—	387.0	—	406.2	2,414.7	3,207.9
1915.....	—	—	670.0	—	746.1	3,574.7	4,990.8
1920.....	293.6	—	974.8	60.0	1,204.4	5,915.9	8,448.7
1925.....	923.1	—	1,942.6	446.4	1,200.5	5,400.1	9,912.7
1930.....	1,201.7	—	2,118.4	637.8	997.5	4,675.3	9,630.7
1935.....	2,564.2	—	1,301.6	277.0	498.8	2,942.9	7,584.5
1940.....	2,723.1	32.2	984.3	91.7	534.2	2,220.9	6,586.4
1945.....	1,557.0	195.5	938.3	5.5	449.6	1,795.1	4,941.0
1950.....	964.7	193.3	1,172.3	0.3	937.1	2,311.5	5,579.2
1955.....	1,279.8	287.2	2,051.8	—	1,210.7	3,415.8	8,245.3
1960.....	2,335.1	439.3	2,819.5	—	1,631.3	4,857.2	12,082.4
1965.....	3,686.8	619.5	4,287.7	—	2,668.5	7,631.8	18,894.3
1967.....	4,914.5	585.4	5,219.7	—	3,169.5	9,421.9	23,311.0

Source: USDA.

pipelines to financial markets, have supplied relatively larger portions than commercial banks which rely primarily on local funds, and are often short of mortgage credit supplies. The share held by the Land Banks rose steadily from the date of their organization through the 1920's. With substantial Government assistance they undertook emergency mortgage financing in the mid-1930's, and their share rose rapidly. After the liquidation of these loans in the 1940's and early 1950's, the Land Bank's share again increased and accounted for 21 per cent of the total in 1967. The share held by life insurance companies rose from 12 per cent of the total in 1910 to 22 per cent in 1967. The share held by commercial and savings banks rose from 13 to 14 per cent of the total during the period.

In addition to the expanded role of the three major institutional suppliers of farm mortgage credit, the group listed under the heading of "individuals and others" may have expanded from its composition of earlier years. In the late Nineteenth Century this group was probably composed almost entirely of individual investors, which included primarily relatives and acquaintances of borrowers, and a small number of other individuals.³ More recently, however, this group consists of a number of other lenders, including endowment funds of schools, fraternal societies, cemeteries, hospitals, etc.⁴

The evidence thus indicates that the supply side of

³Severson, *Ibid.*

⁴William G. Murray and Aaron G. Nelson, *Agricultural Finance*, (Ames, Iowa: Iowa State University Press, 1961), p. 266.

farm mortgage credit markets has increased in competitiveness. The number and types of agencies in the business have increased and the geographic area covered by some has been enlarged. Insurance companies and the Federal Land Banks have tapped the national financial markets for farmers, greatly supplementing local sources of farm mortgage funds. Furthermore, both operate on a nation-wide basis. In contrast, prior to the turn of the century the Federal Land Banks had not been created, and the relatively small portion of mortgage credit supplied by insurance companies was limited primarily to the Corn Belt states. Indicative of the more expansive area coverage of insurance loans during recent years are the data on such loans in specific areas. In 1930 insurance companies held less than 0.2 per cent of the farm mortgage debt in the Northeast and less than 8 per cent of the total in the Mountain and Pacific states. In 1967 they held 3.4 per cent of the total in the Northeast and 27.4 and 17.0 per cent, respectively, in the Mountain and Pacific states.⁵

Non-Real Estate Farm Credit

Non-real estate farm credit supply groups have also increased since 1910. Even to a greater extent than mortgage lenders, this group was dominated by local suppliers well into this century. Local banks, dealers, merchants, and other local sources were almost the only suppliers of such credit prior to the beginning of credit extension by the Federal Intermediate Credit

⁵USDA, *Agricultural Finance*.

Banks and the Farmers Home Administration (emergency crop and feed loans) in the mid-1920's (Table III). In the mid-1930's the Production Credit Associations entered the short-term farm credit supply market and have become a major source of such loans.

It is generally believed that merchants, dealers, and other non-reporting lenders held at least 50 per cent of all non-real estate farm credit prior to the 1940's. Since early 1940, however, the per cent of the total held by this group of lenders has declined, and by early 1967 it accounted for only 41 per cent of all non-real estate farm credit outstanding.

Commercial banks have been the largest single institutional supplier of non-real estate farm credit throughout the period since 1910. It is generally believed that banks supplied about 50 per cent of such credit until the 1930's when the Production Credit Associations and the Farmers Home Administration began operations. Following this additional competition, the per cent held by both banks and non-reporting creditors declined. The banks' per cent of such credit fell sharply in the 1930's, picked up somewhat in the 1940's, held about steady in the 1950's, and has declined somewhat since 1960.

Similar to movements in farm mortgage credit, suppliers of non-real estate farm credit have probably become more competitive in recent decades. Since the early 1930's one major supplier, the PCA's, which can tap the nation's financial markets through the Inter-

mediate Credit Banks, has been added to the credit source group. The Farmers Home Administration has been created to finance the high-risk credit demand with government assistance. In addition, numerous agribusiness corporations with great financial backing have entered the farm financing field in the merchant-and-dealer category in order to enhance sales of farm supplies. These additions have broadened both the number of opportunities for farmers to obtain short-term credit in any locality and the areas in which such funds can be assembled for farm use.

A combination of farm mortgage credit and non-real estate farm credit further points up the changes in farm credit supplies. On the basis of estimates for merchant and dealer credit, which probably understate the amount of such credit in the earlier years, non-institutional credit to farmers has declined relative to the total, from 63.7 per cent in 1910 to 40.9 per cent in 1967. This relative decline has been fairly consistent, except for a few years immediately following World War II when the public had an abundance of liquid assets, and since 1960, a period of rapid expansion in the contract selling of real estate which tends to enhance seller financing of real estate transfers. Despite the rapid growth of seller-financed farms, which offer sizable tax advantages to the seller, the long-term downswing in per cent of farm credit financed by non-institutional sources has not been reversed.

Farm credit supplied by the major institutional lenders has, on the other hand, increased in most decades. About 30 per cent of all farm credit was probably supplied by commercial banks during the 1910-20 decade, a declining proportion during the 1920's, and a sizable further decline during the first half of the 1930's. The per cent held by banks rose from the mid-1930's to the early 1950's and has remained about stable at near the 1910-20 proportion since 1950.

The agencies of the Farm Credit Administration, with the exception of a major bulge during the Depression of the 1930's, followed by a sharp contraction in the 1940's, have shown a fairly consistent gain in per cent of all farm debt holdings.

Table III
NON-REAL ESTATE FARM DEBT HELD BY PRINCIPAL LENDERS
(Millions of Dollars)

	All Operating Banks	PCA	FICB	FHA	Non- Reporting Creditors	Total
1910	1,350.0	—	—	—	1,350.0	2,700.0
1915	1,606.0	—	—	—	1,606.0	3,212.0
1920	3,453.8	—	—	—	3,453.8	6,907.6
1925	2,674.2	—	18.8	2.5	2,695.5	5,391.0
1930	2,490.7	—	47.3	8.0	2,546.0	5,092.0
1935	627.9	60.5	55.1	203.9	947.4	1,894.8
1940	900.1	153.4	32.3	418.0	1,500.0	3,003.8
1945	948.8	188.3	29.8	452.6	1,100.0	2,719.5
1950	2,048.8	387.5	50.8	346.7	2,300.0	5,133.8
1955	2,933.9	577.0	58.3	417.2	3,200.0	7,186.4
1960	4,819.3	1,361.2	89.6	397.6	4,900.0	11,567.7
1965	6,990.0	2,277.5	124.7	643.9	7,100.0	17,136.1
1967	8,533.5	3,015.6	156.9	737.5	8,800.0	21,243.5

Source: USDA, except for loans by non-reporting creditors prior to 1940. Credit by this group before 1940 estimated on the basis that such credit equaled that provided by banks and the Federally sponsored agencies. For further discussion see: Alvin S. Tostlebe, *Capital in Agriculture, A Study by the National Bureau of Economic Research*, Princeton University Press, Princeton, 1957, p. 160.

Also, insurance companies have increased their proportion of farm debt during most of the decades since 1910.

Most of the relative gain by insurance companies was made by the early 1920's when their holdings exceeded 10 per cent of the total. Since then, their share has remained within 10 to 15 per cent of the total.

Following the establishment of the Farmers Home Administration in the early 1930's,⁶ its relative portion of the farm debt gained steadily until the mid-1940's. This agency, designed to provide subsidized credit to low-income farmers, held at its peak over 8 per cent of the total farm credit outstanding. By 1950, however, its share had declined to 5 per cent of the total, and it has not exceeded 5 per cent since that time.

With these data on farm credit trends by the various lending agencies as background, we can summarize farm credit supply developments as follows:

1. Farm credit, like farming itself, is becoming more commercial and less dependent on relative, friend, neighbor, and merchant relationships. Financial institutions currently supply more than 60 per cent of the total, and their portion has generally increased since 1910, with the exception of a short period following World War II when individuals, merchants, and dealers had excessive quantities of loanable funds.

2. With the entry of more financial institutions into the farm credit business and the relative decline of nonfinancial institutional lending, farm credit supplies have become less personal. This tends toward greater efficiency in the industry. Credit and credit purchased resources will flow to the more efficient users as determined by the impersonal officials of the financial agencies. Those users provide the greatest returns to capital and can more readily repay debts.

3. The closer ties of farm credit to the financial markets, as represented by life insurance companies, the Farm Credit Administration, and to a lesser extent, commercial banks through the correspondent banking system, mean a more reliable supply of farm credit but perhaps greater fluctuations in interest rates. With such ties, credit at some price will probably be available to any farmer in the absence of legal restrictions, provided he meets the usual credit requirements of the lender. The same sources of funds, however, reflect relatively wide interest rate fluctuations, and the credit agencies which rely on such sources must ultimately reflect such rate changes in loans to farmers. In the

financial markets, interest rates are determined by the demand for and supply of loanable funds nationally. The rate is thus determined by the productivity of such funds in all potential uses. To gain control of such funds the farmer must thus pay the wholesale rate plus the cost of retailing.

4. Farm credit ties to the nation's financial markets assure more uniform interest rates to farmers throughout the nation, given similar lending costs and risks. Prior to these ties, rates paid by farmers may well have been determined by local supply and demand conditions. In such isolated markets, rates may have been greater or less than rates which reflected national credit conditions. With national funds available, however, local areas where rates are relatively high will attract funds from other areas until local and national rates are equalized after allowing for risk and lending costs differentials.

5. I shall also contend that the relative decline of farm credit by nonfinancial institutional groups was not caused by a decline in competition from these groups, but is the result of increased competition for farm debt on the part of the farm credit institutions. As evidence, we have in the Farm Credit Administration one additional source of farm real estate credit (the FLB's) and one additional source of non-real estate credit (the PCA's) available to every potential farm borrower. In addition, the insurance companies have made available farm real estate credit to most potential users in the nation. Evidence also indicates that commercial banks are more aggressive in the farm credit market than during the first quarter of the century. Large numbers of banks have hired agriculturally-trained men to head farm departments. These men are specially trained for making credit available to farmers. Also, most banks now have substantial non-farm deposits to draw on for farm lending purposes. Such accounts are more stable seasonally than accounts originating in primarily farming communities. Thus, larger credit supplies are available for farm use during the seasonal shortage of farm deposit accounts. Banks also have better arrangements with city correspondents and other outside sources such as insurance companies to draw on for overlines, real estate credit, or general credit shortages.

What is the meaning of these developments to merchant and dealer credit suppliers? I believe that most farm credit demands are being adequately met at competitive rates. If good credit-risk farmers are already receiving adequate credit supplies, extensive gains in merchant and dealer credit is unlikely, except at great risks. I would suggest that for such credit to succeed over the longer run, it must meet the following tests:

⁶The Resettlement Administration in the early 1930's later called the Farm Security Administration.

1. It must be made on a sound basis through proper credit analysis by a credit expert and not primarily by sales personnel.

2. Such credit, if tied to the sale of a particular farm input, must not create an imbalance in the farming operation. Given the fact that most farms are eligible for a limited amount of credit, if excessive amounts are used for one purpose, leaving insufficient amounts for other purposes, the excess may cause the farm to be inefficient. Thus, such credit that causes an imbalance in the farming operation may ultimately lead to failure.

3. The provision of merchant and dealer credit must be made on an efficient basis. If nonfinancial groups can supply credit as efficiently as the financial agencies, healthy competition can be maintained. On the other hand, loanable funds are a scarce resource and cannot be supplied without costs by any lender. Funds must ultimately be purchased from savers, excluding the small increments added through monetary actions. The retailing of funds also requires a margin. Such costs must be eventually covered by rates charged or absorbed in the price of goods sold. Thus, the test for who gets the credit supply business will be determined by who can purchase and sell funds most efficiently.

4. Farming is now being done on narrower margins than formerly, and risks are greater. In 1965 purchased inputs and other expenses amounted to more than three-fourths of total farm product sales. As indicated earlier, debt exposure is also greater. With the narrow margin of profit and the inability of the farmer's own and unpaid family labor to absorb the losses on modern, high-capacity farms, attention must be focused on the reliability of credit analysis. Under these conditions, success in the farm credit business is not likely to be attained through all-out exertions to build up volume alone, but through a combination of sufficient volume of business to achieve efficiency and wise selection of risk to avoid excessive losses and collection costs.

In summation, agriculture has historically been financed internally. Credit has accounted for only a

small proportion of total capital. Credit as a proportion of farm assets has, however, steadily increased in recent decades. With the rising demand for farm credit new specialized farm credit agencies have been developed, and a further expansion of the other financial agencies which were already in the field has occurred. With these developments credit supplied by the noninstitutional groups such as merchants, dealers, and individuals has declined relative to the total. I believe that this decline is the result of more intensive competition in the farm credit business rather than a voluntary withdrawal of the individual, merchant, and dealer group.

Now let's return to a portion of my original subject, "How can businessmen influence the paying habits of farmers?" First, I shall reiterate that there is no substitute for good credit analysis. The soundness of the credit extended is the most important factor in determining whether or not it will be repaid. I believe that the repayment habits of farmers or any other group are more likely to be associated with the individuals selected and the soundness of their business operations than with other means which may be devised. Second, farm credit customers are not operating in isolation of financial markets. The good credit-risk farmers could probably obtain credit from several sources prior to becoming customers of merchants and dealers. Third, I suggest again the possibility of over-selling some inputs to some farmers and thereby causing a profitable farm to become unprofitable. Such a condition is beneficial to neither lender nor borrower.

If merchants and dealers adhere to these credit principals, they will probably continue to be a major competitor in supplying farm credit. Now that most merchants and dealers represent corporations which have connections with the major money markets, they can become a major vehicle for moving funds from surplus to deficit areas, thereby performing a valuable service for farmers and the financial markets. In addition, if the credit is profitable to both lender and borrower, more efficient use of resources is achieved and total welfare is enhanced.



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