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MONEY MARKET IN MAY

Money market conditions remained tight during most of May, reflecting continued large demands for bank credit and pressure on member bank reserve positions. Member bank borrowings from the Federal Reserve Banks averaged close to 1 billion dollars for the month as a whole, about the same as in April, while excess reserves declined and average net borrowed reserves rose slightly above the level of the preceding four weeks. The effective rate for Federal funds in New York City held at 2¾ per cent throughout the month, although there were some transactions at lower rates from time to time.

The increase in net borrowed reserves occurred in the first half of the month and was mainly due to the drain on bank reserves caused by reductions in float and a marked increase in currency in circulation. The drain from these sources was greater than the usual seasonal pattern, and net borrowed reserves averaged 602 million dollars in the three statement weeks ended May 16. Subsequently, however, net borrowed reserves fell to an average of 410 million dollars in the week ended May 23 and 391 million dollars in the week ended May 30.

Federal Reserve System open market operations during May were designed primarily to moderate the changes in member bank reserve positions caused by other factors. System holdings of Treasury securities showed a net increase of 143 million dollars during the five weeks ended May 30, including net outright purchases of 108 million dollars of Treasury bills and the net acquisition of 35 million dollars of short-term Treasury obligations under repurchase agreements.

The prices of Government notes and bonds continued the rise that had started late in April. Underlying the higher prices was a general market reappraisal of the economic outlook which tended toward the view that interest rates in the capital markets might have reached or passed their peak. Treasury bill yields were more responsive to day-to-day money market conditions. Yields fell early in May as nonbank demand increased, tended upward over the midmonth period, and then fell once more as the month drew to a close. The average issuing rate established at the weekly auction for Treasury bills fell from 2.741 per cent for bills dated May 3 to 2.523 per cent for the succeeding issue, and then returned to 2.708 per cent and 2.702 per cent in the following two weeks. In the last bill auction of the month, held on May 28 for Treasury bills dated May 31, the average issuing rate fell to 2.573 per cent.

The markets for corporate and municipal bonds were considerably improved in comparison with the sluggishness and sagging prices which had characterized the period from mid-February to late April. Yields on outstanding issues stabilized during May at around the levels reached toward the end of the preceding month, and most new securities moved well at the higher plateau of rates. Some new issues still encountered difficulties, however, in cases where investors considered a particular issue overpriced in relation to alternative investment opportunities. Meanwhile, dealer rates for commercial paper were raised on May 28 by ⅛ of 1 per cent, bringing the rate on prime four to six months' paper to 3⅜ per cent.

MEMBER BANK RESERVE POSITIONS

Movements in float and currency in circulation tended to dominate changes in member bank reserve positions during May. The float and currency fluctuations generally

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reinforced each other and drained a substantial volume of reserves from the banks over the period as a whole. Member bank reserve balances fell sharply in the statement week ended May 2, owing primarily to the usual month-end fall in float and, in lesser degree, to an increase in currency in circulation. The reserve drain fell almost entirely on banks outside the central reserve and reserve cities, so that the picture for New York City banks was relatively unchanged. Currency in circulation continued to increase until mid-May, in a deviation from its normal intramonthly pattern, thus further depleting member bank reserve balances and keeping net borrowed reserves at a relatively high level through the third statement week of the month despite a fall in required reserves. The tightening of reserve positions during the statement week ended May 16 in good part reversed the situation of two weeks earlier in that virtually the entire increase in net borrowed reserves occurred at New York central reserve city banks.

In the last two weeks of the month, float first rose and then fell by large amounts, and movements in currency reinforced the impact of changes in float upon reserve positions. Average net borrowed reserves thus fell from 613 million dollars in the week ended May 16 to 410 million dollars in the week ended May 23. In the following week, Federal Reserve security transactions and a decrease in the Treasury's balance at the Federal Reserve Banks offset the drain on reserves caused by the decline in float, thereby holding net borrowed reserves to an average of 391 million dollars.

Federal Reserve security transactions in the first half of the month consisted largely of the extension of repurchase agreements designed to moderate temporary increases in reserve pressures. The volume of repurchase agreements outstanding rose from zero on Wednesday, April 25, to 130 million dollars on May 2, but fluctuated at lower levels during the remainder of the month. Outright holdings of Treasury bills declined by 52 million dollars during the four weeks ended May 23, but were increased by 160 million dollars in the week ended May 30, thus showing a net increase of 108 million dollars for the five-week period as a whole.

An additional factor moderating day-to-day changes in reserve positions was the frequent use made by the Treasury of its special call and redeposit facilities with its Class C depositaries. The use of these devices limited the extent of fluctuations in the Treasury's balance at the Federal Reserve Banks and thereby reduced the impact of Treasury operations on member bank reserve positions.

Table I
Changes in Factors Tending to Increase or Decrease Member Bank Reserves, May 1956
(In millions of dollars; (+) denotes increase, (—) decrease in excess reserves)

Factor	Daily averages—week ended					Net changes
	May 2	May 9	May 16	May 23	May 30	
Operating transactions						
Treasury operations*	— 6	+ 27	— 15	— 21	+ 87	+ 72
Federal Reserve float	— 153	— 20	+ 93	+202	—304	—182
Currency in circulation	— 26	— 115	— 63	+ 42	— 10	—172
Gold and foreign account	— 2	+ 29	— 43	+ 61	+ 23	+ 68
Other deposits, etc	+ 26	+ 80	+ 9	+ 4	— 22	+ 97
Total	— 162	+ 2	— 18	+289	—229	—118
Direct Federal Reserve credit transactions						
Government securities:						
Direct market purchases or sales	— 39	+ 9	— 26	— 26	+159	+ 77
Held under repurchase agreements	+ 56	+ 44	— 47	— 43	+ 43	+ 53
Loans, discounts, and advances:						
Member bank borrowings	+ 29	+ 25	— 48	—120	—214	—328
Other	—	—	—	—	—	—
Bankers' acceptances:						
Bought outright	—	—	+ 1	— 1	+ 2	+ 2
Under repurchase agreements	—	—	—	—	—	—
Total	+ 45	+ 79	— 120	—190	— 11	—197
Total reserves	— 117	+ 81	— 138	+ 99	—240	—315
Effect of change in required reserves†	— 14	+ 1	+ 45	— 16	+ 45	+ 61
Excess reserves†	— 131	+ 82	— 93	+ 83	—195	—254
Daily average level of member bank:						
Borrowings from Reserve Banks	1,089	1,114	1,066	946	732	989‡
Excess reserves†	464	546	453	536	341	466‡

Note: Because of rounding, figures do not necessarily add to totals.
* Includes changes in Treasury currency and cash.
† These figures are estimated.
‡ Average for five weeks ended May 30.

Government Securities Market

The prices of Treasury notes and bonds rose during May, in marked contrast to the declines which had characterized most of the preceding three months. The persistence of the increases from day to day was sufficient to raise the prices of issues maturing after 1971 by about 2 points for the month as a whole. However, aside from switching operations, trading was not active. Underlying the upward movement in prices was the growing investor expectation that monetary policy was not likely to become more restrictive in the near future, and that perhaps some easing might be in the offing. Widespread press reports of curtailments in automobile output and sidewise movements in retail sales, residential construction, and industrial production constituted much of the basis for these beliefs. On balance, prices of notes and bonds maturing from 1957 through 1959 rose by $^{5}/_{32}$ to $^{27}/_{32}$ of a point over the month, while issues maturing between 1960 and 1971 rose by as much as 1⅝ points. The 3's of 1995 rose 2⅛ points to close the month at $99^{23}/_{32}$ (bid).

Treasury bill yields fell early in the month, as a substantial demand by corporations and public bodies encountered a limited supply in the market. The yield on the longest outstanding issue of Treasury bills fell 20 basis-points from 2.69 per cent (bid) at the start of the month to 2.49 per cent one week later. Nonbank demand gradually diminished, however, and the money market continued tight, so that yields on Treasury bills then rose despite the trend toward lower yields on other Government securities.

By midmonth the yield on the longest outstanding bill had risen above its beginning-of-the-month level to 2.71 per cent. Later in the month yields declined again, however, as pressure on bank reserve positions diminished, and the longest outstanding Treasury bill closed the month at 2.57 per cent (bid).

Other Securities Markets

The almost continuous rise in rates which had marked the corporate and municipal bond markets since mid-February ended late in April, and the rate stabilization and improved tone carried over through May, with new securities moving relatively smoothly at the higher pattern of yields. During the month, there was a decline of 5 basis-points in average yields on seasoned Aaa-rated corporate bonds and of 9 basis-points on long-term Aaa-rated municipal bonds, as reported by Moody's Investors Services.

The estimated volume of publicly offered municipal bonds increased to about 445 million dollars from about 350 million dollars in April. There was a good investor response and dealers' inventories declined over much of the period, with advertised dealers' holdings reaching the lowest levels in recent months at one point. However, dealers' inventories increased moderately during the latter part of the month.

Public offerings of corporate bonds for new capital amounted to an estimated 670 million dollars during May, up about 355 million dollars from the preceding month. Although the market steadied, it was still necessary to price new issues at rates considerably higher than had been the case a few months ago. Investor resistance to lower yields was most evident in the case of two new Aa-rated public utility bond issues, both priced to yield 3.55 per cent, which moved slowly. In April, a similarly rated utility bond issue had been successfully distributed at a yield of 3.77 per cent. On the other hand, a very large new Aaa-rated issue of industrial debentures was well received at a reoffering yield of 3.465 per cent and was soon quoted at a premium over the initial price in the secondary market. Toward the end of the month, a new Aaa-rated issue of public utility debentures was reoffered to yield 3.45 per cent but was reported to be moving slowly.

Member Bank Credit

During the five weeks ended May 23 total loans and investments declined 372 million dollars at all weekly reporting member banks (about 400 large member banks in 94 leading cities). Investment security holdings fell 1,111 million dollars and total loans rose 739 million, with almost half of the loan expansion consisting of commercial and industrial loans. Increased borrowings by metals and metal products firms accounted for almost two thirds of the rise in these loans during this five-week period.

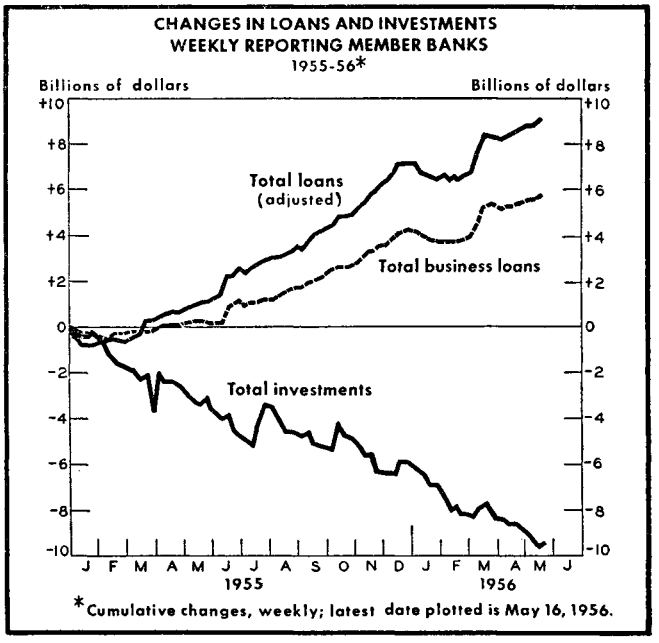
Table II
Weekly Changes in Principal Assets and Liabilities of the Weekly Reporting Member Banks
(In millions of dollars)

Item	Statement weeks ended					Change from Dec. 28, 1955 to May 23, 1956
	Apr. 25	May 2	May 9	May 16	May 23	
Assets						
Loans and investments:						
Loans:						
Commercial and industrial loans	+ 73	+ 219	− 25	+168	−111	+1,386
Agricultural loans	− 1	− 8	+ 3	+ 4	+ 1	
Security loans	− 6	+ 68	− 51	− 18	+131	− 351
Real estate loans	+ 12	+ 6	+ 27	+ 14	+ 23	+ 347
All other loans (largely consumer)	+ 45	+ 43	+ 34	+ 58	+ 33	+ 584
Total loans adjusted*	+124	+ 325	− 11	+225	+ 76	+1,853
Investments:						
U. S. Government securities:						
Treasury bills	− 57	− 29	−181	+164	−102	− 901
Other	−129	− 123	−237	− 21	−103	−2,344
Total	−186	− 152	−418	+143	−205	−3,245
Other securities	− 85	− 65	−132	− 14	+ 3	− 229
Total investments	−271	− 217	−550	+129	−202	−3,474
Total loans and investments adjusted*	−147	+ 108	−561	+354	−126	−1,621
Loans to banks	+128	− 265	− 63	+125	+126	+ 179
Loans adjusted* and "other" securities	+ 39	+ 260	−143	+211	+ 79	+1,624
Liabilities						
Demand deposits adjusted	+195	−1,012	−337	−560	+445	−3,438
Time deposits except Government	− 6	+ 1	+ 8	+ 33	+ 49	+ 26
U. S. Government deposits	+122	+ 718	−345	+861	− 51	+1,535
Interbank demand deposits:						
Domestic	−723	+ 296	−171	+298	−801	−1,496
Foreign	− 6	− 4	+ 2	+ 7	− 4	+ 31

* Exclusive of loans to banks and after deduction of valuation reserves: figures for the individual loan classifications are shown gross and may not, therefore, add to the total shown.

For the year thus far, total loans at the weekly reporting member banks have risen 1.9 billion dollars as compared with an increase of 1.3 billion dollars in similar weeks last year, while total investments have fallen 3.5 billion dollars, about the same amount as in the comparable period a year ago. (See chart.) The increase in business loans at the weekly reporting banks has accounted for about 75 per cent of the total loan expansion in the 21-week period from December 28, 1955 to May 23, 1956, while during the like period in 1955 business loans accounted for only 17 per cent of the total loan increase. In the first 21 weeks of 1955 the bulk of the loan expansion was attributable to an increase in real estate and consumer loans. Thus far in 1956 security loans have fallen 351 million dollars, while during the comparable period in 1955 they rose slightly.

The borrower category mainly responsible for the increase in business loans thus far in 1956 has been metals and metal products companies, although there have also been large increases in loans to companies in the petroleum, coal, chemicals, and rubber group, wholesale and retail trade, and miscellaneous manufacturing and mining firms.



Food, liquor, and tobacco firms and commodity dealers decreased their loans by considerably less than was the case in similar weeks last year. Sales finance companies have reduced their bank loans 356 million dollars thus far in 1956, while in the comparable period last year they increased these borrowings by 350 million dollars. All of the decrease in bank loans to sales finance companies this year took place during January and February; since the beginning of March there has been a net increase in such borrowings.

Reporting member banks continued to liquidate investment assets during the five-week period ended May 23; United States Government security holdings declined 818 million dollars and other securities fell 293 million. For the year thus far, Government securities held by the reporting banks have fallen 3.2 billion dollars as compared with a decrease of 3.6 billion dollars in the first 21 weeks of 1955, and holdings of other securities have declined 229 million as compared with an increase of 97 million dollars last year.

INTERNATIONAL MONETARY DEVELOPMENTS

Monetary Trends and Policies

In West Germany, the Bank deutscher Länder on May 19 raised its discount rate to 5½ per cent from 4½; the rate had been raised from 3 to 3½ last August and to 4½ on March 8. The latest increase brings the West German discount rate to the highest level in four years. At the same time, export bills were included in the commercial banks' rediscount ceilings at the central bank, from which they had hitherto been exempt. The Bank deutscher Länder, in its recent annual report for 1955, had warned against the spreading boom psychology. This has made itself felt in wage demands that now tend to exceed productivity increases, in price rises (which to date, however, have remained moderate), in excessive investment plans by the private sector of the economy, and in numerous demands for increased public expenditures. Superimposed on these pressures will be the impending task of rearmament at a time when Germany's resources, including labor, are close to fully employed.

In Canada, the 15 per cent liquid-assets ratio against demand liabilities (cash, Treasury bills, and day-to-day loans), informally agreed upon between the Bank of Canada and the chartered banks, came into effect at the end of May; the new ratio includes the existing statutory 8 per cent cash reserve, which remains in effect. The full 15 per cent ratio was met (and exceeded) by the chartered banks in the last April statement week; since early May, the banks have reduced their holdings of Treasury bills somewhat. The combined ratio of cash and liquid assets, which had stood at 16.2 per cent on May 2, fell to 15.8 per cent on May 23. The three months' Treasury bill tender rate, which on May 3 had reached a postwar high of 2.91 per cent, declined once more to 2.72 on May 31. At the same time, business loans by the chartered banks have continued to rise, and on May 16 were 10.8 per cent above the end of 1955 and 29.4 per cent above May 18, 1955.

In the United Kingdom, monetary and fiscal restraint continued to prevail during May, with the Chancellor of the Exchequer declaring that: "We intend to get the better of our inflationary troubles. . . . We shall use all the weapons we need to use, both of action and of persuasion". Yields of gilt-edged securities generally rose during May; the yield of 2½ per cent Consols—which on May 2 had reached 4.55, the lowest level since late February—closed at 4.75 per cent on May 31. On the other hand, the average tender rate for three months' Treasury bills, which had stood at 5.01 per cent at the last April tender, declined to 4.95 at the first May tender; this rate, which was the lowest since the February discount rate increase, was maintained at the subsequent May tenders.

In Sweden, where inflationary threats are persisting despite recent measures of credit restraint, the Riksbank late in April concluded an agreement with the commercial

banks under which the latter by the end of August will reduce their loans (except building loans) further, to a level at least 5 per cent below that of July 31, 1955; similar agreements have been concluded with the savings banks and the agricultural credit institutions.

In Colombia, the central bank in April imposed a 60 per cent supplementary reserve requirement against increases in commercial bank deposits above the mid-April level, and also increased the discount rate for commercial bank borrowing in excess of specified limits. At the same time, the authorities approximately doubled (i.e., to 40-100 per cent) the cash-deposit requirement for most types of imports.

Exchange Rates

Following the announcement on May 2 that Britain's gold and dollar reserves had risen 51 million dollars during April, commercial demand for the pound sterling rose noticeably. Accordingly, American-account sterling appreciated to $2.81\frac{1}{16}$ on May 7, while the transferable-sterling rate strengthened slightly to $2.7855. After the midmonth announcement of the results of British trade during April, however, demand weakened somewhat and the rate began a gradual decline; by May 31, American-account sterling had fallen to $2.80\frac{3}{8}$ and transferable sterling to $2.7780.

In the forward-sterling market, discounts dropped substantially in the first half of May, with three and six months' discounts falling from $1\frac{3}{4}$ and $3\frac{11}{32}$ cents to $1\frac{7}{16}$ and $2\frac{15}{16}$ cents, respectively. Subsequently, forward rates steadied, fluctuating narrowly at about the midmonth level. Securities sterling, reflecting declining prices on the British Stock Exchange, weakened somewhat with the rate moving from $2.77\frac{7}{8}$ to $2.76\frac{1}{4}$.

The Canadian dollar gradually strengthened during the month, rising from $1.00\frac{9}{16}$ to $1.01\frac{1}{16}$. The improved rates reflected fair commercial demand along with good investment demand, particularly on the part of British and Continental interests.

The "capital" mark established a new high of 23.87 cents during May, thus maintaining a quotation higher than that for either the freely convertible or the limited convertible marks. With major market activity centered in Switzerland, the higher rates for capital marks reflected the relatively good demand and small supply of these marks which must be used by nonresidents when making investments in Germany.

DISCOUNT POLICIES AND TECHNIQUES ABROAD

In recent years, discount rate changes by the Bank of England and other foreign central banks have attracted world-wide attention. Such changes in the cost of credit supplied by these foreign central banks to commercial banks and other borrowers have had a twofold significance. First, such rate changes have reflected the central bank's appraisal of the current economic trend and, secondly, have provided evidence of official determination to resist speculative and other pressures toward either inflation or deflation.

Although discount policy was the first important method of credit control to be developed, its importance tended to wither away during the 1930's, mainly because of the severe falling-off in the demand for capital and credit during the depression years and the resulting accumulation of surplus reserves by the commercial banks, which accordingly had no need to borrow from their central banks. The outbreak of war quickly transformed the situation into one of capital and credit scarcities but, throughout the war period and for some years thereafter, foreign governments sought to cope with the problem by price controls, rationing, and related devices. As the wartime controls were dismantled, however, and foreign governments turned increasingly to flexible monetary policies to help deal with the world-wide tendency for investment demand to outrun savings, discount policy re-emerged as a major instrument of monetary and credit control.

Access to Central Bank Credit

Discount policy may conveniently be defined as the varying of the terms and of the conditions in the broadest sense, under which the market may have temporary access to central bank credit through discounts of selected short-term assets or through secured advances. It is governed by two basic obligations of central banks—to act as lenders of last resort and to regulate the total volume of commercial bank credit.

During the early stages of discount policy the European central banks, largely following the example of the Bank of England, had gradually adopted relatively simple rules to guide their operations in the field. However, with the passage of time and the spread of central banking to countries with widely different economic and financial structures, discount policy has changed substantially. Although many central banks, such as the Bank of France, are permitted to lend to nonbank as well as bank borrowers, their

lending to the public has been significantly reduced, while the charters of the newer central banks, such as the Central Bank of the Philippines, have generally prohibited any accommodation to the nonbank public. In most foreign countries today, access to the central bank "discount window" is largely confined to the commercial banks; in a number of Asian and Latin American countries, however, official development-credit institutions also have recourse to central banks to an important extent. In addition, government security dealers or discount houses borrow from central banks in some countries that have relatively developed money markets; in the United Kingdom, indeed, the discount houses are the principal borrowers at the Bank of England, while the commercial banks do not borrow at the central bank at all.

The strict rules that used to limit the eligibility of bills for discounting and of securities as collateral for advances, as well as the maximum period of such advances, have by now been considerably relaxed, as it has been increasingly realized that eligibility rules as such are not a protection against overexpansion of credit. Most foreign countries no longer limit central bank discounts to the commercial bill of exchange in the strict sense of the term, but permit the discounting of a wide variety of other paper. Similarly, the admissible collateral for central bank advances now often includes not only all types of government securities but various other securities as well. The tendency of commercial banks in a great many countries to seek central bank accommodation in the form of short-term collateral loans rather than of discounts has pushed the earlier discount-eligibility rules still further into the background. This trend reflects primarily the decreased importance of the commercial bill of exchange and has been facilitated by the enlarged commercial bank holdings of government securities, which provide ready collateral for central bank lending. Advances have also tended to become the preferred method of borrowing because the funds are frequently needed only for short periods and because this form of borrowing is more convenient.

Another major element of discount policy is the rate that the central bank applies to its discounts and advances. Under earlier central banking practices, the discount rate was the rate for the discounting of prime commercial bills, with a somewhat higher rate for advances against collateral; at times, however, some central banks also required a higher rate for discounts of less acceptable paper. Today, in contrast, many central banks actually publish a schedule of several different rates for their discounts and advances.

At the moment, a single rate is in effect in only a few foreign countries, primarily Canada, Italy, New Zealand, the Philippines, and the United Kingdom. Several central banks, particularly those in West Germany and Switzerland, have retained the early practice of having two main rates, with a rate on advances somewhat higher than the rate applicable to discounts. A few other central banks set, besides the discount rate, several rates for advances, varying with the collateral.

About half of the foreign central banks maintain discount rate scales, with two or more rates according to the purpose of the loan; this practice is particularly prevalent in Latin America[1] and Asia. The lower rates of these discount rate scales apply most often to agricultural paper, but frequently also to loans to official development-credit institutions and, in some countries, to Treasury bills.

The Discount Rate and the Cost of Credit

Discount policy seeks to affect both the cost and the availability of bank credit, and its influence depends in the first place on the extent of commercial bank borrowing from the central bank. In a number of countries (particularly Canada and Switzerland) commercial bank recourse to central bank credit is ordinarily very small. At the other extreme is a much larger group of countries (notably Austria, Belgium, France, and a number of Latin American countries) where the commercial banks' borrowing from the central bank generally exceeds their deposits at the central bank, often by several times, and is some times as large as one third of the total commercial bank loans to the private sector of the economy. This great variation in commercial bank recourse to central bank credit is due to a number of factors. In many countries, notably France, it has remained the custom for the central bank to rediscount commercial paper for the commercial banks at any time and not merely when the banks have exhausted all other sources for replenishing their funds. In another group of countries, the commercial banks have generally found little need to borrow from the central bank because they remain very liquid as a result of World War II finance (as in the Netherlands) or of balance-of-payments surpluses (as in Switzerland). In some of the less developed countries, the commercial banks tend to avoid recourse to the central bank except in extraordinary circumstances, since they prefer to operate with ample reserves.

In countries where commercial bank recourse to central bank credit is usually large, the direct influence of the discount rate both on market yields and on the rates charged by the commercial banks tends to be great. Even in those countries where such recourse is generally small, however, discount rate changes tend to have wide repercussions. In the first place, money market rates react quickly in a market that works on a narrow margin and depends on central bank accommodation from time to time. In addition, in

[1] See "Monetary Policy in Latin America", *Monthly Review*, April 1956.

those foreign countries where effective open market operations are possible or where variations in commercial bank cash-reserve requirements are one of the available tools of monetary policy,[2] the central bank can affect the cost of commercial bank credit by influencing the amount that the commercial banks have to borrow and by changing the rate that it charges for its accommodation.

In many foreign countries, moreover, the influence of the discount rate on the cost of credit does not depend on direct market effects alone. The discount rate has a considerable psychological importance, since discount rate changes are often an indication of an interest rate movement that the central bank either expects or desires. As a result, in a number of foreign countries, notably in the United Kingdom, a more or less fixed relationship has been established between the discount rate and commercial bank interest rates. Many of the newer central banks in Asia and in Latin America and some central banks elsewhere, moreover, have authority to control commercial bank rates directly by imposing maximum rates, and thus can in effect change these rates along with the discount rate; so far, however, most of these countries have made relatively little use of these powers.

Discounting and the Availability of Credit

As far as the effect of discount policy on the availability of credit is concerned, recourse to central bank accommodation may present a problem, since the banking system, by borrowing from the central bank and thus adding to its reserves, can offset the central bank's attempts to reduce the cash base during a restrictive phase of monetary policy. Where there is a traditional reluctance on the part of the commercial banks to remain indebted to the central bank for long, the problem is greatly reduced. But such a tradition is rather rare outside this country, with the result that various arrangements have been devised to strengthen the central bank's control over the amount of its discounts and advances.

Under the earlier central banking tradition as it evolved in the United Kingdom, the discount rate was set high enough to be a "penalty rate", and as such tended to discourage borrowing from the central bank. Originally, a penalty rate was defined as a rate higher than the rate charged by the commercial bank on paper presented for rediscount. However, with the decline in the importance of commercial bank discounts this definition largely ceased to apply. At present it seems to be generally considered that a discount rate is a penalty rate when it is appreciably above the rate on the pivotal asset (most often Treasury bills but, in some countries, also call loans) through which the commercial banks adjust their portfolios. In this sense, there are only a few foreign central banks today, primarily the Bank of England, whose discount rate can be called a penalty rate.

Many foreign countries have thus turned to other means of limiting central bank lending to the commercial banks. A number, including in recent years Belgium, Colombia, and Uruguay, have at times tightened the eligibility requirements for commercial paper presented for rediscount, while others have endeavored to restrict the amount of central bank lending in more direct ways. Thus in some countries, among them Brazil and West Germany, the monetary authorities on occasion declined to increase, or actually cut back, their loans to the commercial banks. Other countries, for example Finland, have at times warned the commercial banks that no further accommodation would be available to them if they continued their credit expansion. Many of the newer central banks, including those in Guatemala and Korea, are actually empowered, or even required, by statute to influence general credit conditions when credit creation is excessively rapid by declining to lend to the commercial banks regardless of the eligibility of the paper submitted for discount or the credit-worthiness of the borrower.

Specific ceilings on central bank lending exist in a number of countries, including Austria, Belgium, Colombia, Costa Rica, France, and West Germany. These ceilings are often based on the commercial banks' capital funds, and usually exempt some categories of commercial bank borrowing from the central bank, since the authorities have not found it possible to limit central bank lending very rigidly. In addition, in Chile, Colombia, Finland, and Japan, such discount lines are or have been utilized, along with progressive discount rates that increase with the amount borrowed; a different type of progressive rate has been employed in Pakistan, where the progression depended not on the amount of borrowing but on its duration.

Aside from using the discount instrument to influence the over-all volume of credit, a number of foreign central banks, particularly those in Latin America and Asia, have come to use it as a tool of selective credit control, either by prescribing different criteria for rediscounts of different types of bills or by fixing rates that vary according to the purpose of the loan. By and large, however, the effectiveness of the selective use of the discount instrument is open to doubt.

The Revival of the Discount Rate Instrument

The postwar revival of the discount rate instrument was slow at first, but gradually gathered speed as more and more countries found monetary controls to be a vital part

[2] See "Commercial Bank Reserve Requirements Abroad", *Monthly Review*, October 1955.

of anti-inflationary policies. By 1955, in fact, most European and British Commonwealth countries with well-developed monetary and banking systems had again turned to discount policies and many were using this monetary tool quite emphatically. With the wider recourse to the discount instrument, these countries have tended to raise or lower their discount rates more or less at the same time. The first general phase of discount rate increases lasted from mid-1950 through early 1952; these increases were followed by declines which, in some countries that had raised their discount rates relatively early, had already begun in the second half of 1951. The second, or current, upward movement started in mid-1954 and became more pronounced after the Bank of England rate increase at the beginning of 1955. Even though changes have generally been less numerous than during the pre-1914 period or even during the twenties, there have been no less than twenty-six increases in fifteen countries in Europe and the British Commonwealth since the beginning of 1955; in many of these countries, rates are now the highest since the early thirties, and in some cases are at all-time peaks.

In most countries with well-developed financial systems, moreover, discount rates have ceased to be mere symbols and have again become potent monetary-control instruments. This revival of effectiveness has been largely due to the absorption of the war-inherited excess liquidity of the banking systems as a result of the postwar increase in production and prices. Monetary policy measures likewise have reduced banking liquidity, thus making the banking systems more dependent on central bank credit and the discount rate more effective. For example, special reserve requirements were established in Belgium in 1946, in Italy in 1947, and in France in 1948 under the immediate postwar circumstances then prevailing. In late 1948 West Germany, and in 1952 New Zealand, began to resort to increases in cash reserve requirements. Still another method of reducing the liquidity of the banks was used in Norway and Sweden in 1955, when long-term government bonds were floated at interest rates that were above those maintained earlier, and in addition reserve requirement provisions became effective.

In many countries a more flexible use of open market operations, following upon the abandonment of rigid supports of government securities, also contributed greatly toward enhancing the importance of the discount rate, since it returned to the central bank a large measure of control over credit creation. When the Bank of England, for instance, raised its discount rate in November 1951 for the first time since the prewar period, signaling a return to monetary flexibility, a crucial change was that the bank ceased supporting Treasury bills at a fixed rate.

The countries with less developed financial systems, on the other hand, have changed their discount rates rather infrequently. Monetary policy is necessarily less effective in these countries insofar as a part, perhaps substantial, of their economies is still outside the money stream; in addition, the less developed state of their financial systems narrows the scope for discount policies and other quantitative monetary instruments. Moreover, where discount policy has been used in these countries, it has frequently taken the form, not of simple discount rate moves, but rather of direct limitations on the amounts of central bank lending as well as of changes in selective discount rate scales.

Concluding Remarks

While the postwar development of discount policies and techniques abroad thus points up a number of differences from the pre-1930 period, it also reveals that discount policy still has an important role to play in influencing the cost and availability of credit. With the revival of active monetary policy, discount rate changes have, in many foreign countries, regained their powerful psychological influence. Traditional arrangements relating bank interest rates to the discount rate have been re-established and have led to the almost immediate reaction of these rates to discount rate movements. Moreover, with the gradual return of flexibility in the major money centers and the broadening of the newer money markets, changes in discount rates tend to be transmitted fairly rapidly to other market rates. In addition, a number of foreign countries now not only use discount policy to influence interest rates, but also influence directly the amount of commercial bank borrowing from the central bank.

The present-day economic setting, however, imposes various limitations on the effectiveness of the discount rate weapon abroad. In certain countries, the growth of nationalized industries and other officially controlled enterprises has largely insulated major sectors of the economy against changes in the cost and availability of credit. Moreover, private demand for bank credit seems to be responding less readily to interest changes because of the higher levels of taxation, the widespread practice of financing investment by ploughing back profits, and the reduced importance of the commercial bill. Still another limitation on discount policy in certain countries is the great liquidity of their banking systems, which results in central bank accommodation being little used and the discount rate being out of touch with the market. Moreover, some foreign central banks have still not gained full control over the cash base of the banking system, since they continue to allow free access to their credit facilities through a "back door" at a low rate (often by standing ready to purchase Treasury bills at a pegged rate) rather than through the discount window. Furthermore, even in countries with relatively developed money markets the relationship between the money market and the capital market is

often such that impulses imparted to short-term rates by discount rate changes are not necessarily reflected in long-term rates. Finally, international capital movements are less free than before the war and less sensitive to interest rate changes.

Despite these and other obstacles to the efficient working of discount policy today, the discount instrument has regained much of its former importance. In recent years numerous foreign countries have resorted to discount rate adjustments, not under emergency circumstances when by their lateness they would generally be ineffective, but at a relatively early stage and often at the first signs of changes in economic conditions. Even though the discount instrument has lost some of its simplicity and directness, and is still rather subordinate in countries with less developed financial systems, in those foreign countries where it is used along with other monetary control weapons it once more has a prime place in the armory of economic policy.

COMMERCIAL AND INDUSTRIAL LOANS IN 1955

This article is the second of a series discussing the results of a survey of outstanding commercial and industrial loans of member banks in the Second District. The study is part of a nation-wide survey conducted by the Federal Reserve System of commercial and industrial loans outstanding on October 5, 1955.

The first article, published in the May 1956 issue of this *Review,* described the purpose and general methodology of the survey, the trends in commercial and industrial lending at banks in this District during the postwar period, and the changes in loans to various categories of businesses that took place between November 20, 1946, the date of the previous similar survey, and October 5, 1955. This article analyzes further the pattern of loans by banks of differing sizes, by the legal form of business organization, and by the maturity of loans for various categories of businesses.

As in 1946, the size of a bank is an important factor in determining the character of its customers. The smaller the size of the bank, the smaller the proportion of its loans to manufacturing and mining, sales finance, and public utility companies, while loans to retail merchants and service firms are relatively more important. However, as a result of the postwar merger movement and the decline in the number of small unit banks, the larger banks in this District have been servicing an increasing number of firms in the fields traditionally served by the smaller bank.

The relative amounts of credit extended by banks in the Second District to corporate and noncorporate borrowers showed little change in the aggregate between 1946 and 1955, although there were minor relative increases in the amount of borrowing by corporations in the trade fields and minor decreases in manufacturing and mining industries. Approximately seven eighths of the dollar amount of total business borrowing is done by corporations.

The number of term loans extended by member banks in this District increased significantly between 1946 and 1955, both in absolute amount and as a proportion of the total number of loans extended. The most important factor in the increase was an expansion of small loans to retail merchants and service firms. However, the proportion of the dollar amount of term loans to total business credits showed little change between 1946 and 1955.

Loans to Various Classes of Borrowers by Size of Bank

The 1955 survey, as in 1946, confirmed the fact that there are marked differences in the importance of various industries as loan customers for different size-groups of banks. Small banks tend to service industries in which the typical unit is small and local in character, while large banks tend to service industries in which the typical company is a large concern doing business over a wide geographic area.[1] This correlation between size of borrower and size of bank reflects primarily the differences among banks of varying sizes in resources and in legal limits for loans to any one customer.

Nearly half of the dollar amount of all business loans outstanding on the survey date at the largest banks in the District (those with deposits of 500 million dollars or more on June 30, 1955) was extended to manufacturing and mining concerns. Loans to transportation, communication, and public utility companies accounted for an additional 17 per cent and loans to wholesale and retail trade and commodity dealers for 13 per cent. Concerns in the real estate, service, and construction fields each borrowed 5 per cent or less of the total. About a third of the total dollar amount of business credits extended by medium-sized banks (50 million to 500 million dollar deposit group) went to manufacturing and mining concerns and about 22 per cent to trade firms.

In contrast, at the smallest-sized banks (with deposits of less than 50 million dollars), loans to manufacturing and mining firms accounted for less than 20 per cent of their total dollar amount outstanding, trade concerns for more

[1] Subsequent articles will give more detailed information on the size of borrowers and will discuss the information provided by the survey on the location of borrowers relative to lending banks.

than one third, and construction, real estate, and service firms for relatively substantial amounts.

In number of loans outstanding, the concentration of manufacturing and mining borrowers in large banks and of trade and service firms at smaller banks is not so marked. However, the proportion of manufacturing and mining loans to the total number of commercial and industrial loans ranged downward from more than 25 per cent at banks with deposits of 1 billion dollars or more to about 10 per cent at banks with deposits of less than 10 million dollars. The proportion of trade accounts ranged upward from about 30 per cent at the largest banks to more than 40 per cent at the smallest banks and that of service company accounts from about 14 per cent to more than 25 per cent.

Each bank size-group's share of the total amount of credit extended in the District varies from industry to industry. As Table I indicates, in October 1955, banks with deposits of 500 million dollars and over held more than 80 per cent of the total amount of business loans outstanding in the Second District and one third of the total number of loans. By industry group, the proportion of the total dollar amount of loans held by these banks ranged from 88 per cent for sales finance and manufacturing and mining companies to 52 per cent for construction firms. The proportion of the total number of loans in the District held by the biggest banks ranged from 47 per cent for manufacturing and mining to 13 per cent for construction companies. The banks with deposits of less than 50 million dollars accounted for 6 per cent of the dollar amount of all loans and 40 per cent of the number of loans, but they held 16 per cent of the dollar amount of all loans to construction firms, and about 1 per cent of loans to sales finance companies.

Between the 1946 and the 1955 surveys the proportion of the total dollar amount of loans concentrated in the banks with deposits of 100 million dollars or more showed little change. The proportion of the number of loans held by these banks, however, rose from 40 per cent to 54 per cent of the total. Consequently, the proportion of the total number of loans held by the smallest-sized group of banks declined.

The increase in the relative number of the total business loans held by the larger banks probably reflects the growth in branch banking and the ability of the branch systems to service more of the smaller businesses than formerly, and also the concomitant decline in the number of small banks in the District. In fact, the increases in the relative holdings of the middle and large-sized banks were particularly pronounced in loans to borrowers in the fields of

Table I

Commercial and Industrial Loans Outstanding at Member Banks in the Second Federal Reserve District by Business of Borrower and Size of Bank, October 5, 1955

Business of borrower	Dollar amount of loans, in millions							Number of loans						
	All member banks	Banks with total deposits, in millions						All member banks	Banks with total deposits, in millions					
		Under $10	$10 to $50	$50 to $100	$100 to $500	$500 to $1,000	$1,000 and over		Under $10	$10 to $50	$50 to $100	$100 to $500	$500 to $1,000	$1,000 and over
Manufacturing and mining—total	**4,583**	**22**	**83**	**86**	**357**	**294**	**3,742**	**45,712**	**4,183**	**7,764**	**3,721**	**8,385**	**1,266**	**20,393**
Food, liquor, and tobacco	632	5	9	8	35	42	534	4,832	714	1,113	303	770	212	1,720
Textiles, apparel, and leather	989	2	17	25	88	43	813	14,521	308	1,411	1,150	2,406	149	9,097
Metal and metal products*	1,122	6	29	30	120	105	833	11,158	976	2,613	1,138	2,472	398	3,561
Petroleum, coal, chemicals, and rubber	1,284	2	5	4	40	72	1,161	2,814	448	439	147	519	207	1,054
All other manufacturing and mining†	557	7	23	19	73	33	401	12,387	1,737	2,188	983	2,218	300	4,961
Trade—total	**1,627**	**66**	**145**	**63**	**245**	**49**	**1,059**	**94,559**	**16,523**	**26,204**	**5,228**	**20,173**	**2,868**	**23,563**
Wholesale trade	614	9	44	26	85	16	434	20,729	1,588	4,874	1,364	3,912	439	8,552
Retail trade	688	56	98	33	128	24	349	72,784	14,784	21,196	3,791	16,027	2,406	14,580
Commodity dealers	325	1	2	4	32	9	277	1,046	151	134	73	234	23	431
Other—total	**4,356**	**87**	**206**	**134**	**473**	**290**	**3,166**	**113,858**	**19,490**	**26,676**	**8,191**	**23,515**	**3,163**	**32,823**
Sales finance companies‡	919	1	10	12	86	109	702	1,378	66	135	82	295	135	665
Transportation, communication, and other public utilities	1,575	7	21	14	86	107	1,340	9,160	1,245	1,877	508	2,123	325	3,082
Construction (including operative builders)	355	21	37	22	91	9	175	17,246	4,226	3,994	1,210	5,654	361	1,801
Real estate§	677	11	53	42	112	46	412	14,460	1,755	4,759	1,324	2,920	502	3,200
Service firms#	429	39	66	26	61	10	226	45,853	10,118	11,950	3,121	8,779	1,184	10,701
All other borrowers	402	9	19	18	37	8	311	25,761	2,080	3,961	1,946	3,744	656	13,374
Total, all borrowers	**10,566**	**175**	**434**	**283**	**1,074**	**633**	**7,967**	**254,129**	**40,196**	**60,644**	**17,140**	**52,073**	**7,297**	**76,779**
Number of banks	640	412	170	19	28	3	8	640	412	170	19	28	3	8

Note: Because of rounding, figures do not necessarily add to totals.

* Includes iron, steel, and nonferrous metals and their products; electrical and other machinery; and automobiles and other transportation equipment and parts.

† Includes lumber, furniture, paper, printing and publishing, and stone, clay, and glass.

‡ Firms primarily engaged in financing retail sales made on the instalment plan.

§ Includes real estate operators, owners, agents, brokers, and subdividers and developers of real property.

Includes hotels, repair services, amusements, personal and domestic services, and medical, legal, and other professional services.

services and real estate which are predominantly composed of smaller concerns.

Loans by Form of Business Organization

The proportion of loans to corporate and noncorporate borrowers in this District at the time of the 1955 survey also varied by size of bank and type of industry. In general the larger the bank, the higher the proportion of loans made to corporations. Also, the percentage of corporate borrowers was usually largest in the manufacturing and mining, sales finance, and public utility fields and smallest in service industries (see Table II). Of the 10.6 billion dollars of business loans outstanding on the survey date, 9.3 billion (or 88 per cent) had been borrowed by corporate firms. Only 86,000 of the 254,000 loans outstanding (or 34 per cent), however, were liabilities of corporations. The sharp difference between the number and dollar amount held by corporations reflects the large number of small loans to unincorporated service and retail trade firms.

The distribution of loans between corporate and noncorporate borrowers indicated by the 1955 survey showed little variation from the pattern existing in 1946. Corporate borrowings accounted for about seven eighths of all credits outstanding in both years.

The proportion of loans extended to corporate and to noncorporate borrowers varies considerably among bank size-groups. However, only in the smallest-sized banks was there any appreciable change from 1946 to 1955 in the proportion of lending to corporate business. In 1946, borrowings by corporations accounted for 10 per cent of total business loans at banks with under 2 million dollars in deposits and for 92 per cent at banks with deposits of 500 million dollars or more. The comparable percentages in 1955 were 19 and 93 per cent, respectively.

Term Loans

There were 82,000 term loans (defined as loans with an original maturity of more than one year) outstanding in this District in October 1955; they amounted to 4.3 billion dollars. In dollar amount these loans declined slightly in relative importance between 1946 and 1955, from 44 to 41 per cent of total business loans; but the relative growth in number of loans during the period was substantial, increasing from 19 to 32 per cent of the total number of loans. These divergent trends reflect the sharp drop in the average size of term loans in this District, from $94,000 in 1946 to $52,000 in 1955. In contrast, the average size of all business loans with maturities of one year or less rose from $28,000 to $36,500.

The number of term loans granted in each industry group increased substantially in the nine-year interval between the surveys, and the dollar amount extended increased for all industries except for food, liquor, and tobacco and for sales finance companies. The decline in the average size of term loans, however, is mostly the result of the large increase in long-term borrowing by retailers, service firms, and "all other borrowers". These groups, which are generally composed of the relatively small concerns, not only accounted for the great bulk of the increase in number of term loans but were the largest element in the growth in number of all business loans.

Table II

Commercial and Industrial Loans Outstanding at Member Banks in the Second Federal Reserve District by Business of Borrower and Form of Business Organization, October 5, 1955

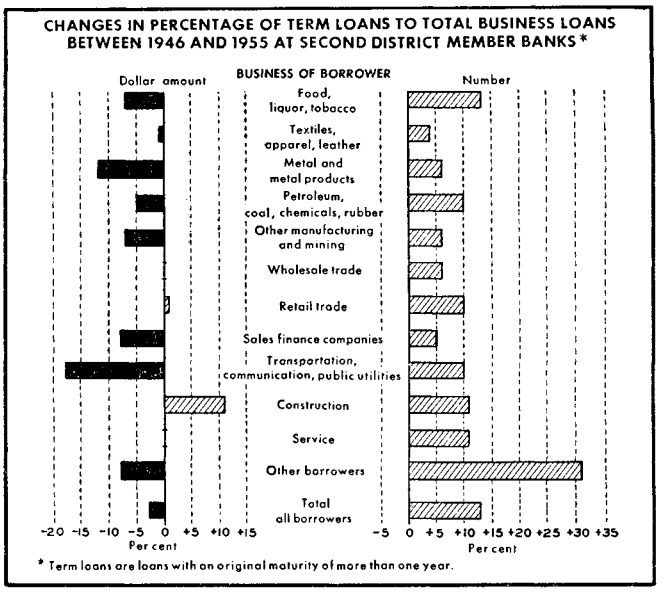
Business of borrower	Dollar amount of loans			Number of loans		
	In millions		Per cent of corporate loans to all loans	Corporate	Noncorporate	Per cent of corporate loans to all loans
	Corporate	Noncorporate				
Manufacturing and mining—total	**4,322**	**261**	**94.3**	**27,460**	**18,252**	**60.1**
Food, liquor, and tobacco	606	26	95.9	2,394	2,438	49.6
Textiles, apparel, and leather	903	86	91.3	9,190	5,331	63.3
Metal and metal products*	1,080	41	96.3	6,859	4,299	61.5
Petroleum, coal, chemicals, and rubber	1,214	69	94.6	1,641	1,173	58.3
All other manufacturing and mining†	518	39	93.0	7,376	5,011	59.5
Trade—total	**1,275**	**352**	**78.4**	**28,727**	**65,832**	**30.4**
Wholesale trade	497	117	80.9	10,623	10,106	51.2
Retail trade	487	201	70.8	17,421	55,363	23.9
Commodity dealers	292	34	89.6	683	363	65.3
Other—total	**3,728**	**628**	**85.6**	**30,133**	**83,725**	**26.5**
Sales finance companies‡	897	22	97.6	1,104	274	80.1
Transportation, communication, and other public utilities	1,524	51	96.8	4,593	4,567	50.1
Construction (including operative builders)	259	96	73.0	6,016	11,230	34.9
Real estate§	483	195	71.3	6,096	8,364	42.2
Service firms#	272	156	63.6	8,859	36,994	19.3
All other borrowers	293	109	72.9	3,465	22,296	13.5
Total, all borrowers	**9,325**	**1,241**	**88.3**	**86,320**	**167,809**	**34.0**

See Table I for footnotes.

Among the various groups of borrowers, the amount of term loans relative to their total bank lines usually varies with the amount of fixed assets necessary to conduct business. The larger the volume of fixed assets, generally the greater the demand for term bank loans, although such loans may be only a supplement to or a temporary substitute for recourse to the capital markets. As Table III indicates, 85 per cent of the dollar amount of loans to the petroleum, coal, chemical, and rubber group of companies outstanding in this District in October 1955, and 70 per cent of the loans to the transportation, communication, and other public utilities group, were term loans.

On the other hand, term loans made up only 7 per cent of the number and 3 per cent of the dollar amount of the borrowings of sales finance companies, which require only small amounts of fixed assets to conduct their business. In addition, firms in wholesale trade (including commodity dealers), and textile, apparel, leather, and food, liquor, and tobacco manufacturers borrow mainly for working capital purposes, such as purchase of inventories or carrying of accounts receivable, and they make only a limited use of loans with maturities of more than one year.

In the various borrower groups shown in the accompanying chart, term lending generally decreased in importance as a per cent of the total dollar value of loans during the 1946-55 period. The largest declines occurred in loans to metal and metal products companies and transportation, communication, and other public utility concerns, while



the largest increase occurred in loans to construction companies. In all groups of companies, however, the relative number of term loans increased rather substantially, the largest increases being shown in the "all other borrowers" group of companies (including real estate) and in food and food products concerns.

The substantial growth in term lending to small business also is evident in the statistics by size of bank. The larger banks, as stated previously, have expanded their lending

Table III
Term Loans Outstanding at Member Banks in the Second Federal Reserve District by Business of Borrower, 1946 and 1955

Business of borrower	Dollar amount of term loans				Number of term loans			
	In millions		As per cent of total loans		Nov. 20, 1946	Oct. 5, 1955	As per cent of total loans	
	Nov. 20, 1946	Oct. 5, 1955	1946	1955			1946	1955
Manufacturing and mining—total	**1,104**	**2,114**	**50**	**46**	**3,095**	**9,350**	**14**	**20**
Food, liquor, and tobacco	169	135	28	21	309	1,366	15	28
Textiles, apparel, and leather	39	161	17	16	530	1,634	7	11
Metal and metal products*	327	470	54	42	841	2,616	17	23
Petroleum, coal, chemicals, and rubber	412	1,090	90	85	335	938	23	33
All other manufacturing and mining†	156	258	53	46	1,080	2,796	17	23
Trade—total	**208**	**351**	**18**	**22**	**9,870**	**25,952**	**17**	**27**
Wholesale trade and commodity dealers	85	93	10	10	1,358	3,190	8	14
Retail trade	123	258	37	38	8,512	22,762	21	31
Other—total	**709**	**1,830**	**56**	**42**	**8,510**	**47,023**	**25**	**41**
Sales finance companies‡	34	30	11	3	23	102	2	7
Transportation, communication, and other public utilities	514	1,110	88	70	2,124	4,914	44	54
Construction (including operative builders)	8	90	14	25	949	4,721	16	27
Service firms§	66	216	50	50	3,891	17,750	28	39
All other borrowers#	86	384	44	36	1,523	19,536	18	49
Total, all borrowers	**2,022**	**4,295**	**44**	**41**	**21,475**	**82,325**	**19**	**32**

Note: Because of rounding, figures do not necessarily add to totals. Term loans are loans with an original maturity of one year or more.

* Includes iron, steel, and nonferrous metals and their products; electrical and other machinery; and automobiles and other transportation equipment and parts.

† Includes lumber, furniture, paper, printing and publishing, and stone, clay, and glass.

‡ Firms primarily engaged in financing retail sales made on the instalment plan.

§ Includes hotels, repair services, amusements, personal and domestic services, and medical, legal, and other professional services.

Includes real estate operators, owners, agents, brokers, and subdividers and developers of real property.

operations since 1946 by means of branch banking to embrace a larger segment of small business, principally in retail trade, services, and the professions, the fields where term lending also has increased substantially. Consequently, although term loans decreased moderately as a proportion of their total loan portfolios, these banks were handling a larger share of the total number of term loans than they were in 1946. Banks with deposits of 500 million dollars or more extended 46 per cent of the number of all term loans outstanding in October 1955, whereas in 1946 they held only 29 per cent of all term loans. The proportion of term loans to the total number of loans in their portfolios rose from 19 per cent in 1946 to 45 per cent in 1955, compared with a smaller increase for the rest of the banks in the District of 19 per cent in 1946 to 26 per cent in 1955.

In dollar amount, the larger banks made 87 per cent of all term loans in the District in 1955, compared with 89 per cent in 1946. Although their term credits more than doubled, the ratio of term loans to total dollar credits extended by the banks with deposits of 500 million dollars or more fell from 49 per cent in 1946 to 44 per cent in 1955. For the rest of the banks in the District, the proportion of term loans to their total dollar credits rose from 23 per cent in 1946 to 28 per cent in 1955.

FLOW-OF-FUNDS ACCOUNTS FOR THE UNITED STATES

The recent publication by the Board of Governors of the Federal Reserve System of the study entitled *Flow of Funds in the United States*[1] marked the formal introduction of a new method of national accounting for the United States economy and the addition of a new tool of business and financial analysis. As a statistical framework for tracing the financial transactions of major economic groups and of the total economy, the "flow-of-funds" accounts will doubtless take a place of importance alongside two other widely used economic accounting systems, the national income and expenditure accounts and the "input-output" accounts of interindustry relationships. While the two latter systems measure flows of goods and services, the approach of the *Flow of Funds* study is to focus upon all transactions effected by a transfer of currency or credit, whether such transactions pertain to currently produced goods and services, to existing assets, or to securities and other financial instruments.

The principal objective of flow-of-funds accounting is to provide a statistical basis for analyzing the interrelations between the production and consumption of goods and services, on the one hand, and the financial processes which assist in or result from such economic activity, on the other hand. Accordingly, the flow-of-funds accounts record all transactions between separate economic units that involve the use of currency and credit. The economic units engaging in such transactions are organized into sectors that are broadly homogeneous with respect to their decision-making processes or their financial structures. The various types of transactions of these sectors are classified into broad categories with similar characteristics for each sector.

Principles of Flow-of-Funds Accounting

Under the flow-of-funds accounting technique, four bookkeeping entries are made for each transaction. For example, the purchase of a new suit by a consumer for cash requires the following entries: (a) the acquisition of the suit by the consumer, (b) the sale of the suit by the merchant, (c) the reduction in cash balances of the consumer, and (d) the increase in cash balances of the merchant. Thus, a typical transaction entailing the use of cash results in four entries—two for the transfer of the commodity and two for the transfer of cash between the buyer and the seller.

It is convenient to think of monetary transactions in terms of a flow of funds from one economic unit to another. In the above example, the purchase of a suit of clothing is a "use of funds" from the standpoint of the buyer and the reduction of cash balances is his "source of funds". Similarly, the sale of a suit by the merchant is a source of funds, while the increase in his cash holdings is the use of funds resulting from this single transaction. It may be seen, therefore, that the very nature of payments and receipts requires a set of interlocking accounts for the various units of the economy which results in an exact balance between the sources and uses of funds for each unit; the inevitability of such a balance also holds true for each sector and for the economy as a whole.

An illustrative flow-of-funds statement summarizing the transactions effected through the use of cash or credit by a hypothetical individual is presented in Table I. His principal source of funds is the salary he receives from his employer, but the entries also show that he received funds from interest on a savings account, dividends from stock holdings, tax refunds from the Federal Government, and the proceeds from the sale of his used car to another consumer. Moreover, this illustrative flow-of-funds statement shows that he obtained one bank loan for the purchase of a new automobile, and another bank loan for the purpose of purchasing corporate stocks "on margin".

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[1] Board of Governors of the Federal Reserve System, *Flow of Funds in the United States, 1939-1953* (Washington, December 1955, 390 pages; $2.75 per copy). Professor Morris A. Copeland directed the early phase of this project, which was undertaken with the cooperation of the Board of Governors, and his report, *A Study of Moneyflows in the United States,* was published by the National Bureau of Economic Research in 1952.

Table I
Simplified Flow of Funds for a Hypothetical Individual
(Annual flows, in dollars)

Transaction	Amount
Sources of funds	
Nonfinancial sources:	
Salary	10,000
Interest from savings account	100
Dividends from stocks	200
Tax refund	50
Sale of automobile	500
Net increase in liabilities:	
Bank loan on automobile	1,000
Bank loan on securities	300
Total sources of funds	12,150
Uses of funds	
Nonfinancial uses:	
Purchase of automobile	2,000
Purchase of nondurable goods	3,600
Rent and other services	2,400
Taxes to Federal, State, and local governments	2,100
Charitable contributions	100
Insurance premiums	250
Net increase in financial assets:	
Currency and deposits	200
United States Savings bonds	500
Corporate securities	1,000
Total uses of funds	12,150

On the side of the ledger showing the uses of funds by the individual, the largest items are his purchases of durable and nondurable goods and of services for himself and his family. The accounts also record the money paid out for taxes of all types, for insurance premiums, and for gifts and donations. Finally, the increases or decreases in his holdings of financial assets such as stocks, bonds, and currency and deposits are indicated.

In contrast to the national income accounts, the flow-of-funds accounts do not show imputed income, such as the rental value of an owner-occupied home, since this does not involve the use of currency or credit. For completeness, however, the *Flow of Funds* study presents supplementary data on those nonmonetary transactions falling outside its structure of accounts, thus enabling a comparison with the national income accounts. A second important difference between the scope of national income accounts and the flow-of-funds system is that the latter includes all transactions in existing assets, such as houses, automobiles, and equipment, and not merely transactions involving currently produced goods. Accordingly, the sale of a used automobile by our hypothetical individual is included in the accounts of Table I.

Similar accounting principles may be applied to the transactions of a business concern (see Table II). Typical items on the sources side of the ledger are sales and receipts from operations, nonoperating income from tax refunds or from the sale of property or equipment, increases in liabilities arising out of loans from banks, increases in accounts payable to other concerns, and the proceeds of stocks and bonds issued by the corporation. Typical uses of funds by a business concern include salary and wage payments, purchases of materials and supplies, interest on bonds and bank loans, rents and royalties, taxes, purchases of plant and equipment, increase in inventory, and dividend payments to stockholders. Moreover, the increase in holdings of financial assets, such as Government securities, accounts receivable, and currency and deposits, are a use of funds by the corporation.

The flow-of-funds statement for a corporation shown in Table II is similar in many respects to the standard corporate income and expenditure account recording transactions during a given year, together with net changes taking place over time in the items of a corporate balance sheet. However, depreciation and depletion charges are not identified in the accounts of Table II since these are transfers of funds internal to a single corporation, while the flow-of-funds accounts record only transactions involving two separate economic units.

As illustrated in the examples above, the sources and uses of funds by different economic units are closely interdependent. Thus, payrolls are a source of funds to consumer employees, but a use of funds by the business employer; purchases of goods by a consumer are a use of his funds, but are a source of funds to the business selling its merchandise. Further, the proceeds of stocks issued by the corporation are a source of its funds, matched by a use of funds by the purchaser of stocks.

A Summary Flow of Funds for the Economy

Because the flow-of-funds technique of accounting may be applied to every unit in the economy, it is possible to combine these units into major groupings or sectors and to classify their myriad transactions into general categories, thereby organizing the flow of funds for the entire economy into a single comprehensive set of accounts. As seen above, the source of funds for each unit is balanced by a

Table II
Simplified Flow of Funds for a Hypothetical Manufacturing Corporation
(Annual flows, in thousands of dollars)

Transaction	Amount
Sources of funds	
Nonfinancial sources:	
Sales and operating receipts	60,000
Nonoperating income	500
Net increase in liabilities:	
Bank loans including mortgages	500
Accounts payable to other businesses	300
Stocks and bonds issued	700
Total sources of funds	62,000
Uses of funds	
Nonfinancial uses:	
Payroll	12,000
Materials and supplies	39,300
Interest	400
Rents and royalties	500
Tax payments	3,500
Plant and equipment outlays	2,500
Increase in inventory	100
Dividends	1,000
Net increase in financial assets:	
Currency and deposits	200
United States Government securities	1,000
Trade credit (receivables)	500
Total uses of funds	62,000

matching use of funds by some unit elsewhere in the economy; consequently, the accounts for the economy as a whole are balancing and interlocking.

The accounts in Table III summarize the flow of funds for the United States economy for the calendar year 1954. The economic units are organized into eight major transactor "sectors": consumer, business, Federal Government, State and local government, banking, insurance, other financial institutions, and the rest of the world.[2]

The transactions of these sectors are organized in Table III into eleven major categories which bring together transactions that are similar for each sector. These transaction categories are divided, on the one hand, into those pertaining to "financial" assets and liabilities, including Federal obligations, mortgages, corporate securities and State and local obligations, currency and deposits, and other financial assets; and, on the other hand, into "nonfinancial" transactions which comprise all other types of flows such as payrolls, investment receipts and payments, insurance and grants, taxes and tax refunds, capital acquisitions, and purchases and sales of other goods and services.

Although the division of transaction categories into nonfinancial and financial groupings is necessarily arbitrary in some respects, an important distinction between the treatment of these two types of flows should be noted. Since data are not generally available for gross purchases and gross sales of financial assets by investors or for extensions and repayments of credit, it is possible at present to show only *net* flows of funds for each financial transaction, deriving such data largely from net changes in balance sheets showing assets and liabilities. On the other hand, flows of funds pertaining to so-called nonfinancial transactions are recorded in the *Flow of Funds* study on a *gross* basis; for example, both tax payments and tax refunds are shown rather than net tax payments (see Table III). The necessity of combining gross flows in nonfinancial transactions with the net flows in financial transactions produces a grand total for the flow-of-funds accounts that is deprived of economic significance by the nature of the compromise. Nevertheless, the data for comparable types of transactions by the various sectors remain meaningful for analysis.

The presentation of statistics in *Flow of Funds in the United States* is far more comprehensive than is indicated by the summary in Table III. A wealth of statistical detail is provided in the published volume, which contains 87 tables of basic data, organized and cross-classified according to economic sectors and by type of transactions. Moreover, the data on a flow-of-funds basis are reconciled insofar as possible with the more familiar statistical compilations of various Federal Government departments and agencies, such as the national income and product accounts, in order to facilitate the transition from one basis to another. The analytical potential of the flow-of-funds system is thereby enhanced for those wishing to examine

[2] More detailed sectoring has been done in the *Flow of Funds* study than is shown here. The "business" sector is divided into corporate, noncorporate-nonfarm, and farm business, while greater detail is also provided for the banking and insurance sectors. In addition, the breakdowns of the transaction categories for each sector are presented in greater detail in the *Flow of Funds* study than is shown in the summary Table III.

Table III
Summary of Flow-of-Funds Accounts for 1954
(Annual flows, in billions of dollars)

Transaction	Sectors (S = Sources of funds, U = Uses of funds)																		Discrepancy (S less U)
	Consumer		Business		Federal Government		State and local government		Banking		Insurance		Other financial institutions		Rest of world		Total		
	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	S	U	
Nonfinancial																			
Payroll	193.7	2.5	...	148.7	...	18.1	...	14.8	...	2.1	...	2.8	...	4.7	...	*	195.7	193.7	...
Investment receipts and payments	61.7	17.2	28.5	74.1	1.1	5.7	0.8	1.1	6.4	2.3	4.1	0.5	1.9	1.7	0.4	2.2	104.7	104.7	...
Insurance and grants	27.1	23.7	3.2	16.7	8.4	16.6	13.2	13.0	*	0.3	29.6	17.9	6.0	1.4	2.3	0.3	90.0	89.9	0.1
Taxes and tax refunds	2.9	38.4	0.4	44.2	61.9	3.3	22.8	...	...	1.0	...	0.9	...	*	...	*	88.0	87.8	0.2
Capital acquisitions	27.0	69.1	2.5	31.0	*	3.5	0.1	9.1	...	0.2	*	0.4	...	2.6	...	...	} 806.9	802.8	4.1
Purchases and sales of other goods and services	...	155.6	744.0	469.2	5.8	32.2	6.0	6.5	0.8	0.8	0.3	3.8	5.2	3.7	15.2	15.2			
Total	312.4	306.6	778.6	783.8	77.3	79.5	42.9	44.5	7.5	6.7	33.9	26.1	13.0	14.1	17.9	17.7	1,283.3	1,279.0	4.3
Financial																			
Currency and deposits	...	6.5	...	1.2	...	0.3	...	0.8	9.7	...	...	*	...	0.8	0.2	0.7	9.7	10.0	−0.3
Federal obligations	...	− 1.1	...	− 1.7	2.3	...	...	1.1	...	3.9	...	− 0.5	...	0.4	...	0.4	2.3	2.4	−0.1
Mortgages	9.3	1.6	3.1	...	...	− 0.1	...	*	...	3.8	...	2.7	0.1	4.4	...	...	12.5	12.5	...
Corporate securities and State and local obligations	...	2.0	5.4	0.4	...	− 0.3	5.5	0.9	0.2	2.1	...	5.8	0.5	0.4	0.1	0.1	11.6	11.6	...
Other	2.1	5.7	− 1.1	2.0	*	0.3	...	...	0.2	1.3	0.4	0.2	5.9	0.6	1.3	0.5	8.8	10.7	−1.9
Total	11.4	14.6	7.4	2.0	2.3	0.2	5.5	2.9	10.2	11.0	0.4	8.2	6.4	6.5	1.5	1.8	44.9	47.1	−2.2
Discrepancy and valuation adjustment	0.4	2.9	...	0.2	...	...	...	0.9	...	− 0.3	...	− 0.1	...	− 1.5	...	*	0.4	2.2	−1.8
Grand total	324.1	324.1	786.0	786.0	79.6	79.6	48.4	48.4	17.5	17.5	34.3	34.3	19.4	19.4	19.5	19.5	1,328.6	1,328.6	...

Note: Because of tabular convention, transactions that ordinarily are a use of funds for a sector are carried in the uses column; hence, negative items appear as "negative uses" rather than sources of funds. Figures may not add to totals shown, owing to rounding.

* Less than 50 million dollars.

Source: Board of Governors of the Federal Reserve System. Data are revisions of the preliminary statistics appearing in the *Federal Reserve Bulletin*, October 1955, p. 1122.

one set of accounts in conjunction with an alternative approach to economic accounting. The statistical tables of the *Flow of Funds* study are accompanied by a thorough textual discussion of the conceptual basis and the statistical sources of the individual items in each table.

At the present time, complete flow-of-funds statistics have been published on an annual basis from 1939 through 1953, and a summary table of 1954 transactions also is available. It is the intention of the Board of Governors to maintain these data on a current basis, and to move to a more frequent reporting sytem as it becomes possible. The eventual publication of these accounts on a quarterly basis doubtless will add greatly to their usefulness as a framework for analysis of current economic trends, and will facilitate comparison of financial transactions with the national income and product accounts which are already available by quarterly periods.

Conclusion

In addition to supplementing existing systems of economic accounting, the flow-of-funds approach provides a needed additional insight into monetary processes, by organizing the transactions of the economy into a comprehensive and consistent structure, in a manner which gives a new perspective as to their interdependence and interrelationship. For analysis of the capital and credit markets, for example, the flow-of-funds accounts record the extent to which business, consumers, or government went to the market to borrow or obtain additional capital, and in what ways investing groups supplied funds to borrowers or reshuffled their portfolios of financial assets during a given year. Moreover, comparisons can be made on a consistent basis with previous years back to 1939. In analyzing the behavior of consumers, the sources of funds (including borrowing) available to consumers can be traced out, as well as the accompanying uses to which such funds have been put by consumers, whether for paying taxes or purchasing durable goods, homes, or corporate stocks and bonds. Indeed, the possibilities for analysis within sectors, between sectors, or between various kinds of transactions are virtually without limit—either in a given year or over a period of years.

SELECTED ECONOMIC INDICATORS
United States and Second Federal Reserve District

Item	Unit	1956			1955	Percentage change	
		April	March	February	April	Latest month from previous month	Latest month from year earlier
UNITED STATES							
Production and trade							
Industrial production*	1947-49 = 100	142*p*	141	143	136	+ 1	+ 4
Electric power output*	1947-49 = 100	215	215	213	189	#	+14
Ton-miles of railway freight*	1947-49 = 100	—	107*p*	108	100	− 1	+12
Manufacturers' sales*	billions of $	27.3*p*	27.1	27.2	26.0	+ 1	+ 5
Manufacturers' inventories*	billions of $	47.9*p*	47.4	46.9	43.3	+ 1	+11
Manufacturers' new orders, total*	billions of $	27.4*p*	26.9	27.6	26.1	+ 2	+ 5
Manufacturers' new orders, durable goods*	billions of $	13.7*p*	13.3	14.1	12.9	+ 3	+ 6
Retail sales*	billions of $	—	15.7*p*	15.3	15.3	+ 3	+ 4
Residential construction contracts*	1947-49 = 100	312*p*	317	318	286	− 2	+ 9
Nonresidential construction contracts*	1947-49 = 100	249*p*	267	298	230	− 7	+ 8
Prices, wages, and employment							
Basic commodity prices†	1947-49 = 100	91.8	89.7	88.9	90.0	+ 2	+ 2
Wholesale prices†	1947-49 = 100	113.7*p*	112.8	112.4	110.5	+ 1	+ 3
Consumer prices†	1947-49 = 100	114.9	114.7	114.6	114.2	#	+ 1
Personal income (annual rate)*	billions of $	—	314.9*p*	313.3	298.9	+ 1	+ 6
Composite index of wages and salaries*	1947-49 = 100	—	146*p*	146	140	#	+ 4
Nonagricultural employment*	thousands	50,377*p*	50,210*p*	50,292	48,882	#	+ 3
Manufacturing employment*	thousands	16,849*p*	16,798*p*	16,856	16,380	#	+ 3
Average hours worked per week, manufacturing†	hours	40.2*p*	40.4	40.5	40.3*r*	#	#
Unemployment	thousands	2,564	2,834	2,914	2,962	−10	−13
Banking and finance							
Total investments of all commercial banks	millions of $	74,700*p*	75,180*p*	75,810*p*	82,620*r*	− 1	−10
Total loans of all commercial banks	millions of $	85,340*p*	84,730*p*	82,540*p*	72,920*r*	+ 1	+17
Total demand deposits adjusted	millions of $	106,110*p*	104,360*p*	105,590*p*	104,500	+ 2	+ 2
Currency outside the Treasury and Federal Reserve Banks*‡	millions of $	30,551*p*	30,531	30,427	30,108	#	+ 1
Bank debits (337 centers)*	millions of $	75,548	73,517	76,830	68,214*r*	+ 3	+11
Velocity of demand deposits (337 centers)*	1947-49 = 100	140.6*p*	130.6	131.9	123.8	+ 8	+14
Consumer instalment credit outstanding†	millions of $	28,260	27,964	27,784	23,513	+ 1	+20
United States Government finance (other than borrowing)							
Cash income	millions of $	4,368	12,351	7,089	3,640*r*	−65	+20
Cash outgo	millions of $	5,428	6,149	5,600	5,344*r*	−12	+ 2
National defense expenditures	millions of $	3,009	3,396	3,075	3,129*r*	−11	− 4
SECOND FEDERAL RESERVE DISTRICT							
Electric power output (New York and New Jersey)*	1947-49 = 100	157	156	156	145	+ 1	+ 8
Residential construction contracts*	1947-49 = 100	—	274*p*	252	225	+ 9	+15
Nonresidential construction contracts*	1947-49 = 100	—	349*p*	332	223	+ 5	+62
Consumer prices (New York City)†	1947-49 = 100	112.3	112.2	112.1	112.3	#	#
Nonagricultural employment*	thousands	—	7,649.5*p*	7,669.6	7,562.3*r*	#	+ 2
Manufacturing employment*	thousands	—	2,649.2*p*	2,657.7	2,635.6*r*	#	+ 1
Bank debits (New York City)*	millions of $	65,715	69,070	63,792	57,634	− 5	+14
Bank debits (Second District excluding New York City)*	millions of $	5,072	4,795	5,045	4,568	+ 6	+11
Velocity of demand deposits (New York City)*	1947-49 = 100	176.0	175.6	161.1	144.7	#	+22
Department store sales*	1947-49 = 100	104*e*	107	105	103	− 3	+ 1
Department store stocks*	1947-49 = 100	124*p*	122	124	114	+ 2	+ 9

Note: Latest data available as of noon, June 1, 1956.
p Preliminary. *r* Revised.
e Partly estimated.
* Adjusted for seasonal variation.
† Seasonal variations believed to be minor; no adjustment made.
‡ Seasonal factors revised back through 1938.
\# Change of less than 0.5 per cent.
Source: A description of these series and their sources is available from the Domestic Research Division, Federal Reserve Bank of New York, on request.