

economic review

JULY 1967



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PROFILE OF SHORT-TERM INTEREST RATES IN THE UNITED STATES AND ABROAD, 1965 TO 1967

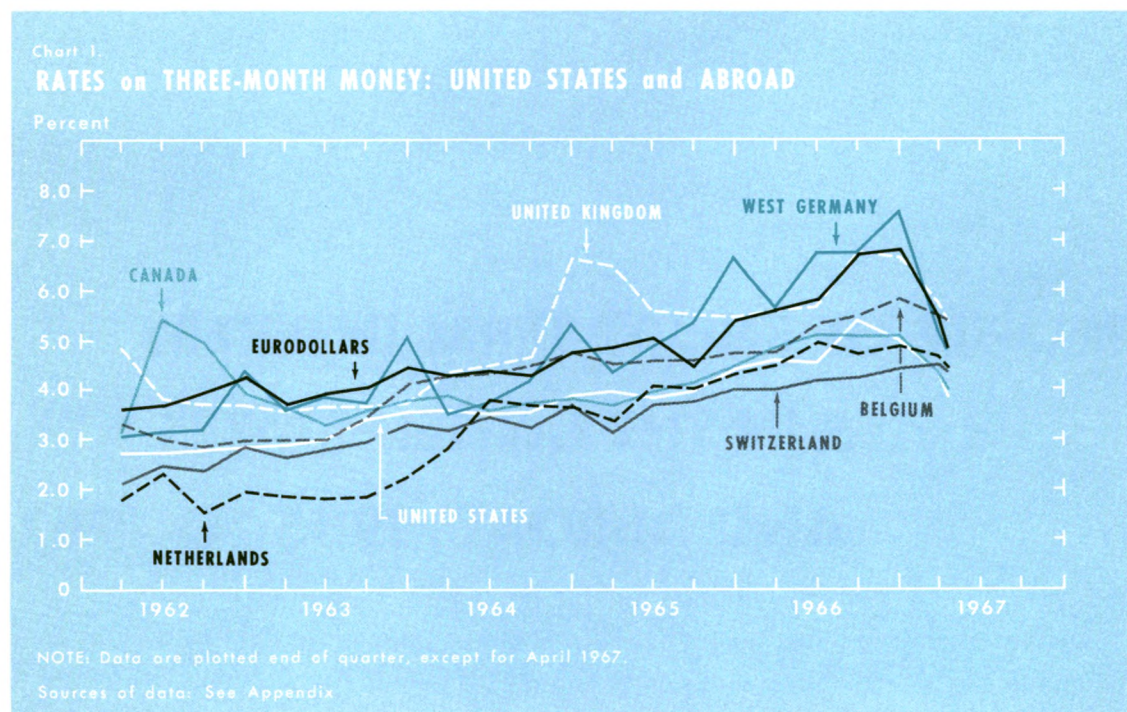
A gradual upward movement in short-term interest rates began in many nations of the western world in 1962 and 1963. The upward movement was interrupted temporarily during 1965, as can be seen in Chart 1.¹ However, beginning around September 1965, interest rates in Western Europe, the United States, and Canada again rose, eventually reaching historic highs during November and December 1966. From Chart 1, it is clear that in late 1965 and 1966 the increase in interest rates in the countries under review was much faster than earlier, and faster than extrapolation

of 1962 to 1965 trends would have indicated. Because of changes in economic conditions, the marked increase in money market rates in late 1965 and 1966 proved to be unsustainable, and following that period, there was a sharp turnaround in rates in most of the countries under review (through April 1967).

This article traces short-term interest rate developments in Western Europe, Canada, and the United States from the beginning of 1965 through April 1967 — a period that includes both a rapid increase and a decline in interest rates. While both the climb and the retreat in interest rates were due in part to economic developments within individual countries, they also reflected the susceptibility of financial markets of individual countries to what was happening elsewhere. That is to

¹ Chart 1 is intended only to provide an overview of the short-term interest rate experience in seven national markets as well as in the Eurodollar market. Admittedly, the use of end-of-quarter figures masks, in part, monthly movements in interest rates that represent a change in trend.

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say, interest rate developments in the major nations are no longer isolated phenomena; the money markets of individual nations have become increasingly interrelated and sophisticated, with the effects of changes in domestic credit conditions spilling over into the international money market.

In reviewing the behavior of short-term interest rates in major industrial nations during 1965 to 1967, a discussion of relationships to rates in the United States is presented. For each country under review, three individual interest rates are used (where available) to provide a fuller perspective of the total short-term interest rate picture. Thus, central bank rates as well as interest rates on both three-month funds (usually the rate on three-month

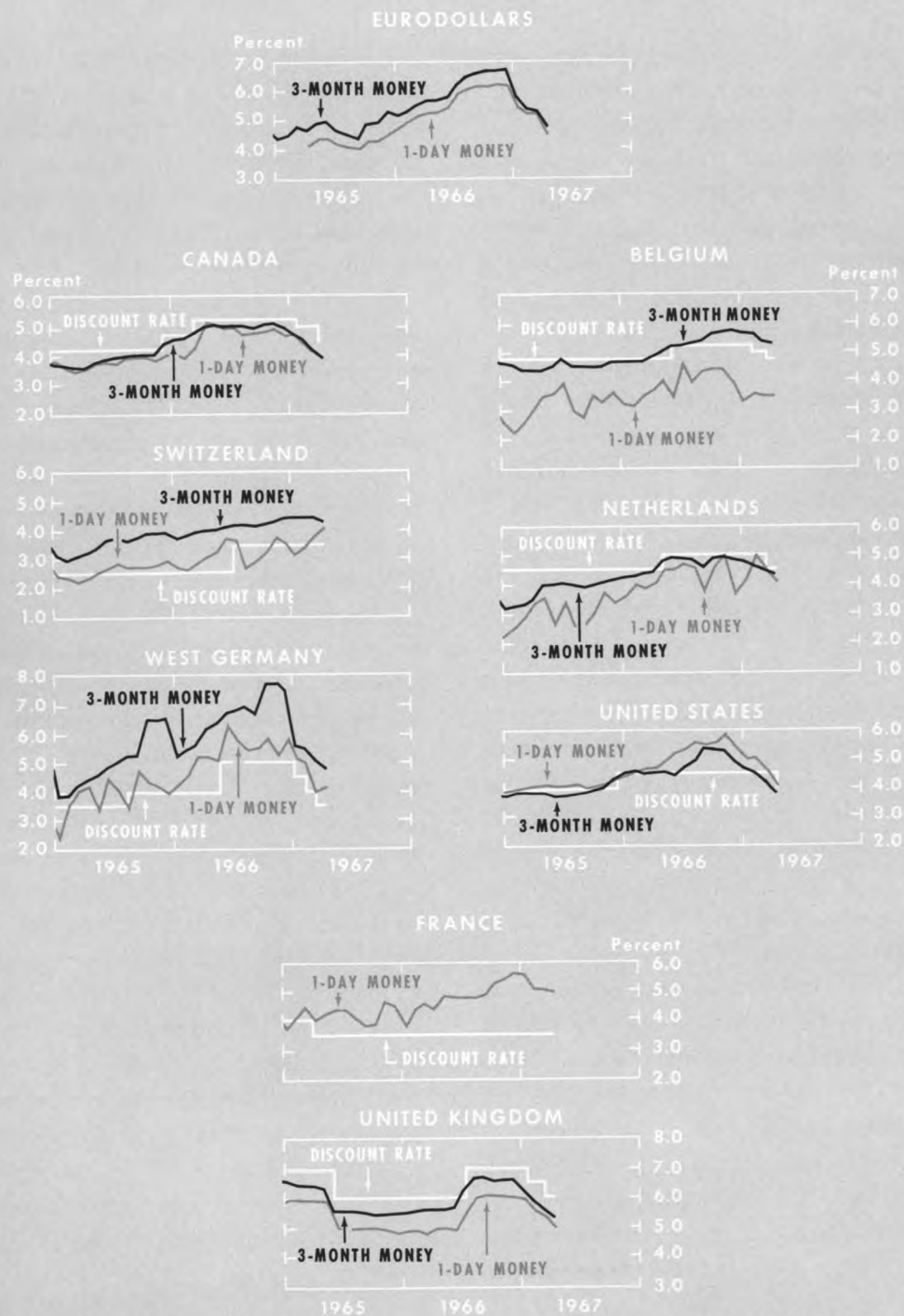
Treasury bills) and one-day money (day-to-day or overnight money) are used. (See Appendix: Description and Sources of Data.) The three types of interest rates are used to make comparisons with similar rates in the United States — the three-month Treasury bill rate and the Federal funds rate as well as the Federal Reserve discount rate. In the case of Eurodollars, only the three-month and single-day rates are used.

INCREASES IN INTEREST RATES

As shown in Chart 2, short-term interest rates in most countries began to move sharply upward after midyear 1965. September can be used as the reference point of the period under review, since both three-month

Chart 2.

SELECTED MONEY RATES: UNITED STATES and ABROAD



NOTE: Data on 1-day and 3-month money are plotted monthly.

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and day-to-day money rates in the Eurodollar market seem to have established a take-off point in that month. From September 1965 to December 1966, the rate on three-month money in the Eurodollar market increased by 237 basis points, and from September 1965 to November 1966, the rate on day-to-day money increased 220 basis points. Both peaks represent historic highs.

The rates on Eurodollars provide a useful basis of comparison since they more closely reflect the interaction of national and international financial market developments than does the trend in any single national money market. Furthermore, the Eurodollar market is sensitive to financial developments and money market conditions in the United States; it thus serves as a link between the Canadian and United States markets on one side of the Atlantic Ocean and the Western European markets on the other. The interdependence between the Eurodollar market and the United States market has been fostered by the growth of transactions of commercial banks in the United States with their foreign branches as well as by the increased use of Eurodollar facilities by United States corporations. The extent of interdependence is evidenced by the competitive relationship as money market instruments between Eurodollars and CDs issued by United States banks.

Eurodollar rates, in a sense, have taken on the quality of a wide market average, even though they often fluctuate sharply. Moreover, the Eurodollar market provides an important link between all the national money markets under review. The linkage has been greatly facilitated by the gradual dismantling

of capital controls by countries making the most active use of the Eurodollar market. Dismantling began in earnest in 1958, with the return to convertibility by the major Western European countries; it was most recently evidenced in the French monetary reforms announced in November 1966.

Using the behavior of Eurodollar rates as reference, national markets that led the general marked upswing in interest rates in 1965 include West Germany, Canada, and Switzerland (see Chart 2). This pattern reflected in part the fast pace of economic activity in those countries, generally, with corresponding increases in credit demand. Interest rates in West Germany were actually rising sharply at the beginning of 1965. In an effort to restrain the demand for credit, the central bank increased its discount rate in August 1965 and again in May 1966; the rate on three-month money in Frankfurt moved to 7.75 percent (in October-November 1966) and day-to-day money to 6.31 percent (in June 1966). In Canada, interest rates began to increase strongly in the spring of 1965, approximately five months earlier than in the Eurodollar market; the advance was accompanied by two increases in the Canadian discount rate (in December 1965 and March 1966). However, as Chart 2 shows, the climb in Canadian interest rates was steadier and smaller in magnitude than the West German experience.

Interest rates in Switzerland began rising as early as 1962, although Switzerland did not experience the marked increase in rates in 1965 that occurred in West Germany and Canada. The increase in Swiss rates after a pause in early 1965 was more or less the

continuation of a longer-term trend. The Swiss did not adjust the central bank rate until July 1966. As shown in Chart 2, the Swiss day-to-day rate moved somewhat at variance with the rate on three-month money, largely fluctuating around the discount rate since July 1966.

Short-term interest rates in the United States, Belgium, and the Netherlands seem to have moved coincidentally with Eurodollar rates. In fact, the Netherlands rates showed a leveling tendency after rising very sharply in late 1963 and early 1964. It was not until September 1965 that the Netherlands rates again moved persistently upward. The same is true, although less markedly, in the case of Belgium. In both countries, the increases occurred at a time of conscious monetary restraint.

It is not surprising that interest rate developments in the United States have a strong influence on the Eurodollar market. Both are international markets and are interdependent. Nevertheless, increases in United States rates in 1965-1966 were not nearly as dramatic as those in the Eurodollar market. The Federal funds rate in the United States reached a high of 5.77 percent in November 1966, an increase of 167 basis points from the rate prevailing a year earlier. The three-month U. S. Treasury bill rate climbed to a high of 5.36 percent in September 1966, an increase of 156 basis points from the level in July 1965. In contrast, as mentioned earlier, the high in the Eurodollar market for day-to-day funds was reached at a level 220 basis points above September 1965; the high for three-month funds was up 237 basis points.

Pronounced interest rate increases in two countries — France and the United Kingdom — tended to lag the rate advance in the Eurodollar market. In both instances, however, there were special circumstances. France had been following an economic program that, from an internal point of view, required high interest rates; in addition, the French money market to a considerable extent was insulated from foreign money market developments by existing institutional arrangements. Nevertheless, with the marked increases in the cost of money in the other Western European countries, interest rates in France began to move up early in 1966, even though the central bank rate remained at 3.5 percent. In the United Kingdom, the movement of money market rates paralleled movements in the central bank rate of that country. In turn, the sterling crisis during the summer of 1966 forced the Bank of England to raise the bank rate to 7 percent, and interest rates then moved up after being stable for about a year (see Chart 2).

DECLINE IN INTEREST RATES

The turnaround in interest rates in late 1966 and early 1967 was associated generally with a change in the monetary policies of most countries from restraint toward ease — reflecting a shift from concern about inflation to concern about a slackening of economic activity. One variation on the general situation would be the United Kingdom, where policy reflected a cautious attempt to reflate the economy with as little inflationary pressure and detriment to the balance of payments as possible. The result, however, was

essentially the same type of rate movement, but with a different impetus. Another variation would be Switzerland, where interest rates showed no declining trend and there was no move to a posture of monetary ease on the part of the Swiss central bank. Thus, except for Switzerland, a slowdown in the rate of economic growth in most countries resulted in similar types of monetary policy designed to bring about easier credit conditions and lower interest rates.

In December 1966, various central banks moved to counter the seasonal tightening in the Eurodollar market and supplied funds on a short-term basis. Rates on Eurodollars turned down sharply in January 1967; in one month, the three-month rate fell by 92 basis points and the day-to-day rate fell by 75 basis points. The reversal in Eurodollar rates culminated a period of lessening pressures in most of the continental money markets, as well as in the United States.

From the beginning of 1967 through the end of April, there were 11 separate reductions in central bank discount rates in the countries under review. Central banks in three countries—Belgium, Canada, and the United Kingdom—lowered their discount rates twice and West Germany, three times. Of all the countries under review, only the central banks in Switzerland and France did not lower their discount rates. During the period of pronounced increases in interest rates, when most central banks adjusted their discount rates upwards, France did not. Consequently, no downward adjustment was necessary as market rates of interest declined. Switzerland raised its central bank rate to

3.5 percent in July 1966; but, since money market rates in Switzerland did not retreat after that time, no central bank action was taken.

As was the case on the upside, leads and lags in interest rate adjustments developed on the downside in relation to the Eurodollar market. Money market conditions apparently eased first in the United States and Canada. The United Kingdom is also a candidate for consideration in this context. The question of how to reflate the economy in the face of lagging private investment demand was perhaps the major factor in the easing of money market conditions there. Canada lowered its discount rate first by a quarter of a point in January, following the decline in market rates that began in December, and then by half a point in April, coincident with a discount rate reduction in the United States. In the United States, a reduction in reserve requirements and an expansionary open market policy, followed by a reduction in the discount rate in April 1967, eased money market conditions appreciably. Short-term interest rates declined quite steadily beginning in the fall of 1966.

The decline in West German rates occurred at about the same time as the decline in the Eurodollar market rates. From the beginning of 1967, there was a great deal of concern in West Germany about the slowing of economic conditions, leading to three half-point reductions in the central bank rate to a level of 3.5 percent (at the end of April) as well as reductions in reserve requirements. In March 1967, the Netherlands central bank rate was cut to the year-earlier level; and in Belgium,

a succession of discount rate cuts put the central bank rate at 4.75 percent. The central bank rate reductions during March in Belgium and in the Netherlands paralleled the downward movement in their three-month market rates. Through April, rates on day-to-day money did not establish a clear trend in either country. In contrast, rates on day-to-day money in France dropped sharply in February and March, after peaking in December.

Switzerland is the only country where the three-month money rate did not move down. Also, as indicated earlier, the day-to-day rate showed no discernible trend in that country.

The interdependence of money markets that appeared during the period of pronounced rate increases is also evident during the period when money market rates declined. While the general decline in money market rates was obviously encouraged by the emergence of broadly similar economic conditions in most of the countries under review (Switzerland is the exception), the decline in Eurodollar rates coincided with central bank actions in various countries. At the same time, market demands for Eurodollars by United States banks subsided and a more accommodative monetary policy was initiated in the United States; both actions contributed to an improvement of supply-demand relationships in the Eurodollar market. With the Eurodollar market providing an alternative source of funds for some potential borrowers in the national markets under review, the move toward lower domestic money market rates was facilitated, becoming most apparent in West Germany and the United States, and to a lesser extent in Belgium,

Canada, France, the Netherlands, and the United Kingdom.

EXPERIENCE OF THE UNITED STATES

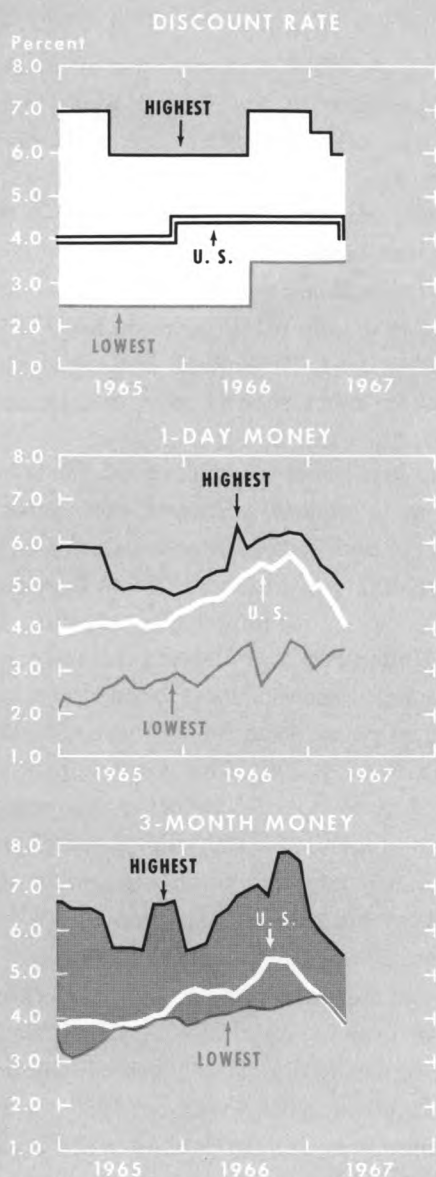
Chart 3 provides a comparison of interest rate experience in the United States with that of the other countries discussed here. The top line in each panel (discount rate, day-to-day money, three-month money) is the highest rate recorded within the group under review for each month, and the bottom line is the lowest rate; all other rates fall within the shaded area. The middle line represents the experience of each type of interest rate in the United States.

In the first panel (discount rate), the range from top to bottom narrowed considerably during the period under review (from 4.5 percentage points in January 1965 to 2.5 points in April 1967). In addition, the discount rate in the United States, following the reduction in early April, moved closer to the lowest rate than at any time from the beginning of 1965 through April 1, 1967. The narrowing of the range of discount rates reflected the increasing interdependence of the international money market and individual national money markets, as well as the coincident tapering off of economic activity in many countries.

The second panel (one-day money) shows that the rate in the United States (Federal funds) increased almost as fast as the highest day-to-day rate until November 1966. At that time, there was a sharp decline in the United States rate, which, through April, had not been matched to the same extent by day-to-day money elsewhere. Nevertheless, the rate on one-day money in the United States re-

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Chart 3.
PROFILE OF SELECTED MONEY RATES:
UNITED STATES and ABROAD



NOTE: Data on 1-day and 3-month money are plotted monthly.

Sources of data: See Appendix.

maintained closer to the highest rate than to the lowest rate, except in the last few months of the period covered by this review. The spread between the lowest and highest rate narrowed during the later months of the period. In April 1967, the difference amounted to 152 basis points, down from 357 basis points in January 1965.

The three-month money rate picture is quite different, with the United States rate (three-month Treasury bills) consistently close to the lowest rate. As with day-to-day money, the range between the highest and lowest rates on three-month funds narrowed considerably, with the highest rate moving downward sharply. In January 1965, the range amounted to 340 basis points; in April 1967, the range was 156 basis points. It is interesting to note that the three-month bill rate in the United States was close to the bottom of the range in its maturity group, while the rate on Federal funds in the United States was close to the top.

In general, the recent decline in interest rates in the United States was faster than for most continental rates. United States rates at the end of April were lower than year-earlier levels, as were those of Canada and West Germany. At the end of April, West Germany was the only nation in Europe to have both day-to-day and three-month money rates below year-earlier levels. The same situation existed in the Eurodollar market.

CONCLUDING COMMENTS

Events move so quickly in the money markets of the world that it would be foolhardy to predict either the direction of interest rate

movements in the months ahead or what interest rate relationships might be. Nevertheless, the experience of the recent period makes it abundantly clear that international money markets are moving closer together. To some extent, this reflects the dismantling of capital controls in national markets as a

concomitant of improved understanding and greater cooperation between and among countries. Consequently, the recent parallelism of interest rates reflects the increasing speed with which money market developments in one country are being transmitted to other countries.

APPENDIX: DESCRIPTION OF DATA AND SOURCES

<u>Market</u>	<u>Rate</u>	<u>Description</u>	<u>Sources</u>
EURODOLLARS	One-day money	Averages of the bid rate of interest paid on call, United States dollar denominated time deposits by banking institutions in London.	Board of Governors of the Federal Reserve System
	Three-month money	Averages of the bid rate of interest paid on 90-day United States dollar denominated time deposits by banking institutions in London.	Board of Governors of the Federal Reserve System
CANADA	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of weekly averages of daily closing rates.	Bank of Canada, <i>Statistical Summary</i>
	Three-month money	Average of average yields of weekly tenders on Thursdays.	Bank of Canada, <i>Statistical Summary</i>
SWITZERLAND	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of the rates reported on the four return dates (7th, 15th, 23rd, and last day of the month).	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	Average of the rates paid on three-month deposits with big banks in Zurich.	Deutsche Bundesbank, <i>Monthly Report</i>
WEST GERMANY	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of lowest and highest rates quoted during the month on day-to-day money in Frankfurt am Main.	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	Average of lowest and highest rates quoted on three-month loans in Frankfurt am Main.	Deutsche Bundesbank, <i>Monthly Report</i>
BELGIUM	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of rates in the compensation market, weighted with amounts lent out.	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	Average of market yield on three-month Treasury bills.	Deutsche Bundesbank, <i>Monthly Report</i>
NETHERLANDS	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of day-to-day money rates.	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	Average of market yield on three-month Treasury bills.	Deutsche Bundesbank, <i>Monthly Report</i>
UNITED STATES	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of seven-day averages of Federal funds rate for weeks ending Wednesday.	<i>The Federal Reserve Bulletin</i>
	Three-month money	Average of market yield on three-month Treasury bills.	<i>The Federal Reserve Bulletin</i>
FRANCE	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of daily opening rates of day-to-day money secured by private securities.	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	No figures available.	
UNITED KINGDOM	Discount rate		<i>The Federal Reserve Bulletin</i>
	One-day money	Average of the average of lowest and highest rates for day-to-day money.	Deutsche Bundesbank, <i>Monthly Report</i>
	Three-month money	Average of the tender rates on three-month Treasury bills at the weekly (Friday) Treasury bill auctions in London.	Deutsche Bundesbank, <i>Monthly Report</i>

FARM OPERATORS AND BANK DEBT

Several characteristics of farm operators in the Fourth District using bank credit emerge from the nationwide survey of agricultural loans by the Federal Reserve System as of June 30, 1966. An earlier article discussed the characteristics of agricultural loans in the District.¹

More than three-fourths of the farm operators using bank credit were owner-operators. About 90 percent of that group owned all the land that was operated; the remainder owned part and rented part of the land operated.

Full and part owners accounted for 76 percent of the borrowers and 82 percent of the bank credit outstanding to farmers, as shown in Table I. The average debt per borrower for each group was exceeded only by that of the landlords of tenant-operated farms. Tenant operators constituted the next largest group using bank credit, with 13 percent of

the borrowers, and 7 percent of the debt outstanding. The tenant group had the smallest average debt per borrower. Landlords represented the smallest number of borrowers, but were the third largest users of bank credit and had the highest average debt per borrower. The higher average bank debt for landlord borrowers probably reflects frequent use of loans secured by farm real estate to finance improvements on tenant-operated farms.

TYPES OF FARM

More than one-half of the farms were sufficiently diversified to be classified as general farms and accounted for the largest dollar volume of bank credit on the survey date (see Table I). General farm operators had an average debt per borrower of \$3,690, somewhat more than for tobacco farms, but less than for all other major types of farms.

Cash grain farm operators ranked second in relative importance, both in number of borrowers and dollar volume of bank credit

¹ See "Agricultural Loans at Commercial Banks in the Fourth District," *Economic Review*, Federal Reserve Bank of Cleveland, May, 1967.

TABLE I
Characteristics of Farm Borrowers at Fourth District Banks
June 30, 1966

Tenure	Number of Borrowers	Percent Distribution	Outstanding Debt		
			Total (thousands of dollars)	Percent Distribution	Average per Borrower
Full owner	74,666	67.0%	\$343,153	70.9%	\$ 4,596
Part owner	10,428	9.4	53,109	11.0	5,093
Tenant	14,967	13.4	34,156	7.1	2,282
Landlord	7,348	6.6	43,647	9.0	5,940
Not reported	4,053	3.6	9,597	2.0	2,368
Type of Farm					
General	56,872	51.0%	\$209,860	43.4%	\$ 3,690
Cash grain	14,285	12.8	69,764	14.4	4,884
Dairy	12,881	11.6	65,576	13.6	5,091
Tobacco	10,616	9.5	32,544	6.7	3,066
Meat animals	8,638	7.8	58,494	12.1	6,772
Vegetable	1,129	1.0	8,414	1.7	7,451
Poultry	1,025	0.9	9,343	1.9	9,113
Other major products	801	0.7	7,968	1.7	9,941
Fruit	105	0.1	1,096	0.2	10,395
Not reported	5,109	4.6	20,603	4.3	4,033
Annual Farm Sales					
Under \$5,000	43,959	39.5%	\$118,391	24.5%	\$ 2,693
\$5,000—\$9,999	34,476	30.9	140,792	29.1	4,084
\$10,000—\$19,999	17,473	15.7	119,370	24.7	6,832
\$20,000—\$39,999	4,818	4.3	43,912	9.1	9,115
\$40,000 and over	1,564	1.4	25,793	5.3	16,489
Not reported	9,172	8.2	35,403	7.3	3,860
Total Assets					
Under \$5,000	4,980	4.5%	\$ 2,772	0.6%	\$ 557
\$5,000—\$9,999	7,674	6.9	10,298	2.1	1,342
\$10,000—\$24,999	28,746	25.8	74,568	15.4	2,594
\$25,000—\$49,999	27,823	25.0	125,539	26.0	4,512
\$50,000—\$99,999	18,990	17.0	120,492	24.9	6,345
\$100,000—\$199,999	5,972	5.3	71,934	14.9	12,046
\$200,000—\$499,999	1,237	1.1	20,322	4.2	16,428
\$500,000 and over	80	0.1	4,335	0.9	54,263
Not reported	15,960	14.3	53,400	11.0	3,346
Net Worth					
Under \$5,000	10,510	9.4%	\$ 14,555	3.0%	\$ 1,385
\$5,000—\$9,999	15,849	14.2	38,790	8.0	2,448
\$10,000—\$24,999	33,219	29.8	127,252	26.3	3,831
\$25,000—\$49,999	23,824	21.4	123,155	25.5	5,169
\$50,000—\$99,999	12,364	11.1	93,095	19.3	7,530
\$100,000—\$199,999	2,956	2.7	35,426	7.3	11,985
\$200,000 and over	778	0.7	12,784	2.6	16,423
Not reported	11,963	10.7	38,604	8.0	3,227
Line of Credit					
Under \$5,000	3,315	3.0%	\$ 4,771	1.0%	\$ 1,439
\$5,000—\$9,999	3,001	2.7	13,456	2.8	4,484
\$10,000—\$24,999	2,579	2.3	19,436	4.0	7,536
\$25,000—\$49,999	636	0.6	11,024	2.3	17,341
\$50,000—\$99,999	134	0.1	1,911	0.4	14,231
\$100,000 and over	6	*	1,019	0.2	181,240
No credit line	101,791	91.3	432,045	89.3	4,244
Distance from Bank Office					
Under 5.0 miles	25,291	22.7%	\$131,415	27.2%	\$ 5,196
5.0—9.9 miles	43,843	39.3	189,000	39.1	4,311
10.0—19.9 miles	35,324	31.7	135,604	28.0	3,839
20.0—29.9 miles	4,918	4.4	15,192	3.1	3,089
30.0—49.9 miles	959	0.9	7,395	1.5	7,713
50.0—74.9 miles	234	0.2	195	*	832
75.0 miles and over	152	0.1	279	0.1	1,837
Not reported	689	0.6	1,812	0.4	2,631
Not applicable	53	0.1	2,769	0.6	52,617
TOTAL	111,462	100.0%	\$483,662	100.0%	\$ 4,339

* Less than 0.05 percent.

Sources: Agricultural Loan Survey, June 30, 1966, Board of Governors of the Federal Reserve System and Federal Reserve Bank of Cleveland

outstanding. However, cash grain farmers ranked eighth in average debt per borrower (\$4,884).

Dairy farm operators were the third most important group, and accounted for 11.6 percent of borrowers and 13.6 percent of outstanding debt, as shown in Table I. The average bank debt of dairy farm operators was \$5,091.

Tobacco farmers, ranking fourth among bank credit users, accounted for a smaller proportion of the dollar volume than of the number of borrowers. The average debt per borrower of \$3,066 was the lowest for the major types of farms.

Operators of meat animal producing farms, comprising about 8 percent of total borrowers, ranked fifth, but accounted for 12 percent of total bank debt. Average debt per borrower at \$6,772 was more than twice the average debt for operators of tobacco farms, and one-fourth larger than for dairy farms.

Each of the remaining types of farms represented 1 percent or less of the borrowers, but accounted for a larger share of outstanding debt. Average debt per borrower ranged from \$7,451 for vegetable farms to \$10,395 for fruit farms. Except for vegetable farms, the average debt per borrower for these farms was more than twice the average bank debt for all borrowers.

ANNUAL FARM SALES

About 40 percent of the farm operators using bank credit had annual sales of less than \$5,000, and accounted for 25 percent of the total outstanding bank debt (see Table I). Average debt per borrower in this group was \$2,693, or significantly less than the average for all borrowers. Operators with annual

sales from \$5,000 to \$9,999 represented about 31 percent of the borrowers and accounted for 29 percent of total debt. Debt per borrower in this group was also below the average for all borrowers. In contrast, operators with annual sales from \$10,000 to \$19,999 constituted 16 percent of the borrowers, but accounted for 25 percent of bank debt. Average debt per borrower at \$6,832 was well above average of all borrowers. Similarly, operators in the sales groups \$20,000 to \$39,999 and \$40,000 and over accounted for a much larger proportion of the dollar volume of debt outstanding than of the number of borrowers using bank credit, which was reflected in a significantly larger average debt per borrower in these two groups.

As a general matter, the average debt per borrower increased as annual sales rose, but the increase was not in direct proportion to the increase in annual sales.

TOTAL ASSETS AND NET WORTH

Over 50 percent of the farm operators had total assets of \$10,000 to \$49,999, 17 percent from \$50,000 to \$99,999, and 7 percent had assets exceeding \$100,000. At the opposite end of the range in asset holdings, slightly over 11 percent had total assets of less than \$10,000.

Net worth of farmers using bank credit followed a distribution pattern similar to total assets, but the proportions in each group varied (see Table I). For example, 51 percent had net worth ranging from \$10,000 to \$49,999, 11 percent from \$50,000 to \$99,999, and less than 3.5 percent had net worth in excess of \$100,000. Those with net worth of less than \$10,000 were nearly 24 percent of the total.

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Outstanding bank debt per borrower increased as total assets and net worth increased, but the increase did not parallel the growth of total assets and net worth. The ratio of debt to net worth and of debt to total assets tended to strengthen with each group.

BANK LOCATION IN RELATION TO BORROWERS SERVED

Nearly two-thirds of the farmers using bank credit on June 30, 1966, lived within ten miles of the bank from which credit was obtained (see Table I). More than 90 percent of the borrowers lived within a 20-mile radius of the bank serving their credit needs. This close proximity of borrowers and lenders permits lenders to have first-hand knowledge of the borrowers' farming operations; and, in turn, enables borrowers to seek the counsel of the lender promptly when problems arise. Most lenders with substantial experience in agricultural credit place considerable emphasis on periodic inspection by a representative of the bank of the farm operation being financed. With a high proportion of the loans within a short distance from the bank, this procedure can be effectively pursued.

LINES OF CREDIT

As capital requirements for various crop and livestock enterprises rise, loan officers of some banks find it practical to establish lines of credit that permit farm operators to proceed with development of an enterprise with assurance that credit will be available. This type of credit has been particularly applicable to enterprises such as feeding beef cattle or feeder pigs, and in the production

of high value crops like tobacco, or tomatoes for processing, where the producer has a relatively high cash expenditure during the production period.

About 9 percent of District farmers using bank credit as of June 30, 1966, had established lines of credit, compared with 11 percent nationally.

As shown in Table I, lines of credit to farmers ranged up to \$100,000, although there are a few instances of borrowers with lines greater than that figure. The average line of credit of farm borrowers at Fourth District banks amounted to \$9,630 (not shown in table), which was \$4,000 less than the average line in any other District. Borrowers with lines of credit tended to have larger average debt per borrower. For example, the average debt per borrower for all borrowers with a line of credit was \$5,337 (not shown in table), one-fourth more than the \$4,244 average bank debt of those with no line of credit.

Loans outstanding to borrowers with lines of credit as of June 30, 1966, amounted to 55 percent of the total amount of lines established.

BANK DEBT AND AGE OF BORROWER

The average bank debt of farm operators in the District rose with each age group to the group 35 to 44 years of age (see Table II). Thereafter, average debt per borrower declined with average debt for the 65 years and over group being lower than for any other reported group.

A similar pattern of average debt per borrower prevailed in the nation, except that the lowest average debt was for the under 30 age group. Average debt for all individuals was

TABLE II

Farm Borrowers at Fourth District Banks*

By Age and Amount of Debt

June 30, 1966

Borrower	Percent Distribution of Borrowers		Percent Distribution of Outstanding Debt		Average Debt Per Borrower	
	Fourth District	United States	Fourth District	United States	Fourth District	United States
Under 30 years	4.2%	5.8%	4.2%	4.8%	\$4,227	\$4,400
30-34 years	9.3	9.3	10.2	8.9	4,718	5,176
35-44 years	26.4	23.7	30.3	26.4	4,898	6,000
45-54 years	32.0	29.3	32.7	32.2	4,363	5,946
55-64 years	17.7	18.2	14.5	17.5	3,490	5,207
65 years and over	5.8	5.8	4.7	5.0	3,448	4,684
Not reported	4.6	7.9	3.4	5.2	3,187	3,545
Total	100.0%	100.0%	100.0%	100.0%	\$4,321	\$5,401

* Individuals only.

Sources: Agricultural Loan Survey, June 30, 1966, Board of Governors of the Federal Reserve System and Federal Reserve Bank of Cleveland

TABLE III

Farm Borrowers at Fourth District Banks*

By Status

June 30, 1966

Status	Number of Borrowers (in thousands)		Percent Distribution		Average Debt Per Borrower	
	Fourth District	United States	Fourth District	United States	Fourth District	United States
Full-time	61	1,268	55.1%	65.1%	\$4,474	\$6,282
Part-time	44	483	39.4	24.8	4,168	3,864
Not reported	6	198	5.5	10.1	3,412	3,509
Total	111	1,949	100.0%	100.0%	\$4,321	\$5,401

* Individuals only.

Sources: Agricultural Loan Survey, June 30, 1966, Board of Governors of the Federal Reserve System and Federal Reserve Bank of Cleveland

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about \$1,000 more per borrower in the nation than in the Fourth District.

PART-TIME FARMING

Increased capital requirements in agriculture have had a significant influence on the proportion of farmers engaged in part-time farming. The number of farm borrowers at commercial banks in the nation who engaged in part-time farming increased 63 percent between 1956 and 1966. As of June 30, 1966, about 25 percent of the nation's farmers using bank credit operated on a part-time basis; that is, they received a third or more of their

gross income from nonfarm sources (see Table III). In contrast, 39 percent of District farm borrowers similarly qualified as part-time farmers. The higher proportion of part-time farmers in the District than in the nation probably reflects both the smaller average size of District farms compared with the nation, and the relatively more abundant opportunities for off-farm employment in the District than prevails generally in the nation.

Similarly, while average debt per borrower was larger for most groups in the nation than in the District, the average debt per borrower for part-time farmers in the District was larger than in the nation.



