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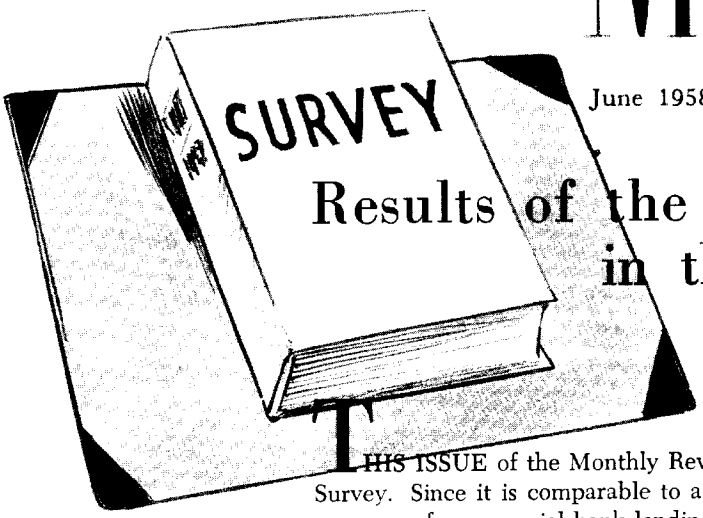

Results of the 1957 Business Loan Survey in the Eighth District

Part II

THIS ISSUE of the Monthly Review contains the second and final report on the 1957 Business Loan Survey. Since it is comparable to a similar survey conducted in 1955, a means is afforded to analyze the response of commercial bank lending to rising income and employment in a period of monetary restraint.

While the economies of both the nation and the Eighth District expanded under the impact of particularly large plant and equipment outlays during these two years, they grew at markedly different tempos. The variation in pace is partially reflected by the fact that business loans at district banks increased $166 million or by 16 per cent, while the rate of increase for the nation was over twice as great.

The first article in the April issue of this *Review* dealt with the substantial increase in the share of bank credit which was absorbed by large firms. It was pointed out at that time that this development probably resulted from the massive capital formation undertaken by such firms. This issue deals with three other facets of the survey data. They are changes in the pattern of loan maturities, the distribution of business loans by size of bank and finally changes in business loan interest rates. The findings can be stated briefly:

1. Between 1955 and 1957 there was a substantial shift in the maturity preferences of district borrowers from the shortest maturities (six months or less) to term financing (over one year). The lengthening of loan portfolios was experienced by banks in all deposit sizes.

2. The largest banks in the district increased their share of business loans somewhat while the share of the smaller banks declined.

3. Interest rates on business loans rose generally in the district. However, the largest borrowers absorbed a larger increase in rates than did small firms. Furthermore, the increment in interest charges was greater at large banks than at small ones.

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Results of the 1957 Business Loan Survey in the Eighth District

Part II

THE FLOW of commercial bank credit to commerce and industry has long been a matter of interest to the Federal Reserve System. The third postwar Business Loan Survey conducted in October 1957 represents a recent effort to measure the volume and chart the distribution of this flow. But this survey, coming as it did roughly at the end of the so-called tight money period, possessed a special interest for many. If the results of the 1957 and 1955 surveys are compared, it is possible to silhouette the general contours of commercial bank lending during the intervening two years of tight money.

Because other data were available, it was generally realized that during this period of monetary restraint, banks, by disposing of other assets, increased the total amount of credit made available to business. The effects of a changing economic environment on the composition of bank credit to business, however, were not so well known nor could they be determined without additional knowledge. What kinds and sizes of businesses acounted for the increase in loans? Which loan maturities increased and which decreased? What happened to interest rates? Were there differences in loan patterns among banks of varying deposit size? The latest Business Loan Survey helps to answer such questions by supplying information on the various characteristics of borrowing businesses and lending banks and on the maturities and interest costs of loans as well.

An article in the April 1958 *Monthly Review* filled in some of the background material associated with the latest survey and attempted to delineate certain features of the 1957 borrowing businesses as they compared with their 1955 counterparts. Some changes in the distribution of loans by business of the borrower were found. A more obtrusive shift was the substantial increase in the proportion of commercial bank credit absorbed by large firms between the two surveys both in the nation and in the district. As was pointed out in the earlier article, the nation's economic growth during this period helps to explain both these developments. There were substantial additions to the nation's productive capacity during 1956 and 1957 which occurred in industries consisting primarily of large firms.

The nature of these developments also affected other variants of bank lending which will be discussed in this, the second article dealing with the 1957 Business Loan Survey of district member banks. More specifically, three other facets of the data will be explored. They relate to: first, loan maturities; second, size of lending banks, and third, interest costs of loans. In each case comparisons with the 1955 results will be drawn.

Loan Maturities at Eighth District Banks

There appear to have been some substantive changes in the maturity preferences of Eighth District borrowers in the two years which elapsed between the surveys. In general, there was a lengthening of the business loan portfolios at commercial banks in the district and in the nation. This reflects, at least partially, the extended plant and equipment outlays which characterized the period.

The data in Table I which contain some of the findings regarding the distribution of maturities are divided into four classes. The shortest maturities, payable in six months or less including loans payable on demand, formed the first group. Loans which matured in over six months but not more than one year comprised the second group. The third and fourth maturity classes included all term loans; that is, loans which mature in over one year.

TABLE I

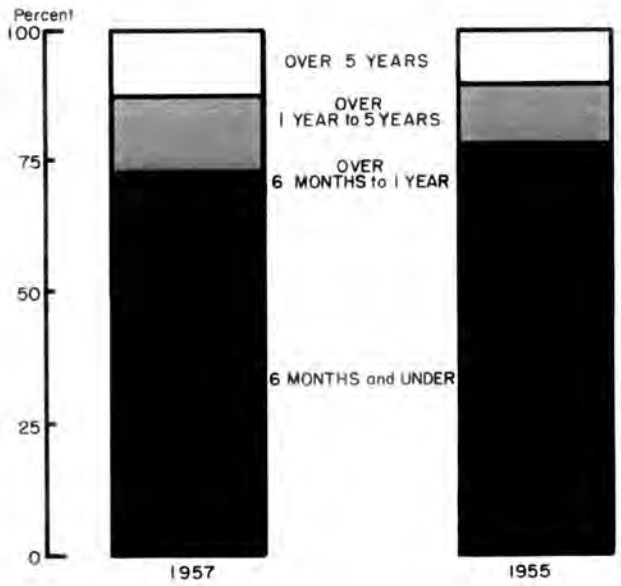
BUSINESS LOANS BY MATURITY
EIGHTH DISTRICT MEMBER BANKS

	Amount Outstanding (Millions)		Percentage Distribution	
Maturity	Oct. 16, 1957	Oct. 5, 1955	Oct. 16, 1957	Oct. 5, 1955
6 months and less	$ 739	$ 717	61.7%	69.5%
Over 6 months—1 year	132	90	11.0	8.7
Over 1 year—5 years	175	117	14.6	11.3
Over 5 years	152	108	12.7	10.5
Total	$1,198	$1,032	100.0%	100.0%

Table I indicates that the major shift in the maturity distribution of the volume of commercial bank loans in the district occurred in the shortest maturity loan category which dropped from 69 per cent of all loans in 1955 to just under 62 per cent in 1957. This substantial reduction in the amount of loans maturing in six months or less was accompanied by increases in the shares of all other maturity classes. The largest gain was registered by loans with a maturity over one year—the term loans. Of every $100 of bank credit outstanding in the Eighth District, loans with this extended maturity had grown from about $22 in 1955 to over $27 in 1957. These changes in the distribution of loan maturities at district banks between 1955 and 1957 are also revealed in Figure 1, above.

FIGURE I

DISTRIBUTION OF BUSINESS LOAN MATURITIES AT EIGHTH DISTRICT BANKS
1955/1957



Loan Maturities and Asset Size of Borrower

Additional light can be cast on the nature of these developments by considering not only the aggregate figures on maturity as they appeared in Table I, but the variations in the distribution of maturities for borrowers of differing size as well. Cognizance is taken, that is, of the proportions in which borrowers of each asset size distributed the maturities of their borrowings among the shortest, the intermediate and term loans.

In general, small firms tend to be much more heavily dependent on commercial banks for all their financing than do large firms. Furthermore, they tend to put a larger proportion of their bank borrowing in term loans. No doubt, these tendencies simply reflect the fact that small firms have much more limited access to capital markets than do well-known and well-established large firms. Consequently, small firms utilize commercial banks more intensively for term financing of plant and equipment than do their larger counterparts. Small firms do borrow heavily in maturities of one year or less, indeed this is the preponderant form of bank borrowing for all sizes of firms, but the proportion of short maturities to all maturities is much smaller for small firms than for large ones.

This is quite evident from the data in Table II. The smallest firms had 61 per cent of their bank loan volume in short instruments in 1955 while term loans accounted for 39 per cent. The discrepancy between the proportions of short and long term loans tended to increase with the size of firm. Thus in 1955 for firms with assets of $100 million or more, loans maturing in one year or less comprised 86 per cent while term loans were but 14 per cent of the volume of commercial bank loans. In general, the smaller the firm, the larger the proportion of its bank borrowing in term (over one year) form.

Table II indicates that in the two years between the survey dates, all firms increased the dollar amount of their term loans. However, it was only for firms with assets under $5 million that this term loan increase occurred on a percentage basis. The smallest firms expanded their share of term loans at district banks from 39 per cent in 1955 to 42 per cent in 1957. For the somewhat larger small firms, the increment was even greater. At the same time loans maturing in one year or less, as a per cent of all bank loans, decreased. An increase in the use of trade credit (credit extended by one business to another) which occurred in this period probably acted as a substitute for short term bank loans to some extent.

Large businesses, on the other hand, tended to increase their share of bank loans in shorter maturities, while reducing still further their proportion of term loans. The one exception was the increment in the share of term loans absorbed by the largest firms ($100 million and over). But this was an anomaly because, in substantial measure, it resulted from heavy term borrowing by a very few district businesses, primarily in transportation and public utilities. Were it not for this special development in a district not heavily endowed with $100 million firms, the category comprising the largest firms would have conformed to the borrowing patterns of the $5-25 million and $25-100 million businesses. They showed an increase in the per cent of short maturities and a decrease in term loans.

These variations between large and small firms in the maturities of their commercial bank borrowings are a natural outgrowth of financial developments during the two years between the surveys. An enormous volume of securities was floated in the nation's capital markets in order to finance the massive public and private development which took place during the period. Municipalities, states, and other governmental units together with private businesses, made continuous and heavy demands on investment capital. Temporary overcrowding of the capital markets was,

TABLE II

BUSINESS LOANS BY MATURITY AND BY ASSET SIZE OF BUSINESS
EIGHTH DISTRICT MEMBER BANKS

October 16, 1957 — October 5, 1955

	Asset Size of Business in Dollars													
	100,000,000 and over		25,000,000-99,999,999		5,000,000-24,999,999		1,000,000-4,999,999		250,000-999,999		50,000-249,999		Less than 50,000	
Maturity	1957	1955	1957	1955	1957	1955	1957	1955	1957	1955	1957	1955	1957	1955
	Amount Outstanding (Millions of Dollars)													
1 year and less	$123.2	$ 89.2	$65.5	$41.6	$125.4	$ 88.5	$199.1	$239.7	$195.5	$177.9	$130.0	$133.4	$33.3	$36.3
Over 1 year—5 years	23.6	3.6	5.0	6.6	10.0	14.2	42.5	20.3	36.3	23.1	43.7	33.0	14.9	16.4
Over 5 years	21.3	10.6	26.5	19.0	19.8	7.2	24.9	17.1	17.2	21.8	31.9	26.4	8.8	6.6
Total	$168.1	$103.4	$97.0	$67.2	$155.2	$109.9	$266.5	$277.1	$249.0	$222.8	$205.6	$192.8	$57.0	$59.3
	Percentage Distribution													
1 year and less	73.3%	86.3%	67.5%	61.9%	80.8%	80.5%	74.7%	86.5%	78.5%	79.8%	63.2%	69.2%	58.4%	61.2%
Over 1 year—5 years	14.0	3.5	5.2	9.8	6.4	12.9	15.9	7.3	14.6	10.4	21.3	17.1	26.2	27.7
Over 5 years	12.7	10.2	27.3	28.3	12.8	6.6	9.4	6.2	6.9	9.8	15.5	13.7	15.4	11.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

therefore, a frequent occurrence. Under these circumstances many large firms, unwilling to postpone the implementation of their investment plans in a period of rising prices, resorted to commercial banks as a short term (a year or less) expedient until conditions were more propitious for a new security issue.

This condition, taken together with the bank borrowing that resulted from the increased volume of trade credit which competition forced large firms to extend, probably accounts for the increased proportion of loans maturing in a year or less.

Loans and the Deposit Size of Eighth District Banks

For purposes of the Business Loan Survey respondent banks were divided into four groups based upon the volume of their deposits. They ranged from the largest banks with $1 billion or more of deposits to the smallest whose deposits total less than $10 million. Since the Eighth District contains no banks with deposits of $1 billion, our survey encompasses only the three smaller groups of banks. Subsequent discussion of the largest banks should be understood to refer to the largest district banks; that is, those with deposits of $100 million or more but less than $1 billion.

In 1955 the largest banks, which constituted but 1.6 per cent of the number of district member banks, extended almost 60 per cent of all business loans. The medium size banks, numbering approximately 16 per cent of the district bank total, had about 30 per cent of the volume of business loans outstanding. The remaining 10 per cent of the loan volume was divided among the smallest banks, which comprised almost 83 per cent of the district's bank population.

Table III reveals that all three classes of banks shared in the $166 million increase in business loans in the district between 1955 and 1957. However, they did so in such varying proportions that the largest banks expanded their relative share slightly while the smaller banks sustained modest relative declines. Since large firms of necessity, do most of their bank borrowing at large banks, their increased demand for bank credit is principally reflected in the loan portfolios of those banks. On the other hand,

TABLE III

BUSINESS LOANS BY SIZE OF BANK
EIGHTH DISTRICT MEMBER BANKS

October 16, 1957 — October 5, 1955

Bank Deposit Size (Millions of dollars)	Number of Banks	Amount Outstanding 1957 (Millions of dollars)	Amount Outstanding 1955 (Millions of dollars)	Percentage Distribution 1957	Percentage Distribution 1955
100 and over.....	8	$ 735	$ 606	61.4%	58.7%
10—100	77	348	320	29.0	31.0
Less than 10	406	115	106	9.6	10.3
Total.....	491	$1,198	$1,032	100.0%	100.0%

the business of small banks is primarily confined to small firms. Since there was a relative decline in the share of all business loans absorbed by small firms, the small banks' share of business loans in the district did not keep pace with the growth in loan volume.

The substantial plant and equipment outlays of 1956 and 1957 which were found to have significantly affected the structure of business loans with regard to the various matters so far discussed, also had an impact on the distribution of maturities by the deposit size of bank.

While all three sizes of banks increased the proportion of their loans in term form, the largest gains in both dollar and percentage terms were registered by the largest banks. Likewise, at all three sizes of banks, maturities of a year or less declined as a per cent of all loans, although in dollar terms the largest banks manifested an 11 per cent increase.

TABLE IV

BUSINESS LOANS BY SIZE OF BANK AND MATURITY
EIGHTH DISTRICT MEMBER BANKS

October 16, 1957 — October 5, 1955

Bank Deposit Size (Millions of dollars)	1 Year and Less 1957	1 Year and Less 1955	1 Year—5 Years 1957	1 Year—5 Years 1955	Over 5 Years 1957	Over 5 Years 1955
100 and over.....	$541	$488	$ 89	$ 48	$105	$ 70
10—100	255	244	60	48	33	28
Less than 10.....	75	75	26	21	14	10
All Banks.....	$871	$807	$175	$117	$152	$108
Percentage Distribution						
100 and over.....	73.6%	80.5%	12.1%	7.9%	14.3%	11.6%
10—100	73.3	76.3	17.2	15.0	9.5	8.7
Less than 10.....	65.2	70.8	22.6	19.8	12.2	9.4
All Banks.....	72.7%	78.2%	14.6%	11.3%	12.7%	10.5%

Interest Rates on Business Loans

During the two years between the surveys, a period of tight money and rising interest costs, the average interest rate charged on all business loans by district banks rose from 4.32 per cent in 1955 to 4.96 per cent in 1957, a gain of .64 percentage points. Perhaps the most striking feature of the changes which occurred in interest rates from 1955 to 1957 was the reduction in the spread between the rates charged the largest and smallest business borrowers at district banks.

As shown in Table V the average rate charged firms with assets of $100 million or more rose 1.12 percentage points, while the average rate to the smallest borrowers increased only .06 of a percentage point.

TABLE V

AVERAGE INTEREST RATE BY SIZE OF BUSINESS
EIGHTH DISTRICT MEMBER BANKS

October 16, 1957 — October 5, 1955

Asset Size of Business	Amount Outstanding (Millions of dollars) 1957	1955	Average Interest Rate 1957	1955
100,000,000 and over	$ 168	$ 103	4.24%	3.12%
25,000,000—99,999,999	97	67	4.40	3.36
5,000,000—24,999,999	155	110	4.73	3.75
1,000,000— 4,999,999	267	277	4.91	4.03
250,000— 999,999	249	223	5.13	4.62
50,000— 249,999	205	193	5.51	5.02
Less than 50,000	57	59	6.17	6.11
Total	$1,198	$1,032	4.96%	4.32%

For the borrowers of intervening sizes, the increment in average rates declined from the larger to the smaller firms. In addition, the requirement that borrowing firms maintain compensating balances was substantially more prevalent during this period than it had been hitherto. Since this requirement applies less to small firms than to large ones, the spread between the effective rates charged the smallest and largest borrowers probably narrowed by more than the actual rates would indicate.

TABLE VI

AVERAGE INTEREST RATE
BY SIZE OF BANK AND MATURITY
EIGHTH DISTRICT MEMBER BANKS

October 16, 1957 — October 5, 1955

	Deposit Size of Bank in Dollars					
	100,000,000 and over		10,000,000-100,000,000		Less than 10,000,000	
Maturity	1957	1955	1957	1955	1957	1955
1 year and less	4.79%	3.87%	5.14%	4.43%	5.59%	5.39%
Over 1 year—5 years	4.92	4.62	5.64	5.81	6.17	5.95
Over 5 years	4.18	3.69	4.86	4.50	5.45	5.21
All Maturities	4.71%	3.92%	5.21%	4.70%	5.73%	5.49%

There are several factors which accounted for large borrowers having to absorb more sizable increases in interest costs than did small borrowers. First, small borrowers in many cases are already close to or at the effective maximum rates permitted by law. Thus, there is less room for increases in rates to such borrowers than is true for those who are well inside the margin. Second, monetary restraint may have acted to eliminate from loan consideration some of the smallest, least creditworthy firms. The relatively small increase in rates to small borrowers probably reflects the omission of such high cost borrowers. Third, small banks, who provide much of the financing for small borrowers, did not raise interest rates to the same degree as did large banks.

Outlying banks, more remote from the day-to-day pressures of the money market, customarily do not change their interest rates as frequently as large urban banks. In the recent period of tight money, for example, large banks felt the effects of monetary restraint to a much greater degree than did small banks. From 1955 to 1957 at the smallest banks in the district, the increase in the average rate charged was only .24 percentage points, while for the largest banks it was .79 percentage points.

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