

NEIL H. JACOBY and RAYMOND J. SAULNIER

Term Lending to Business

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Financial Research Program
Studies in Business Financing

NATIONAL BUREAU OF ECONOMIC RESEARCH

Term Lending to Business

This volume is an account of an important development in the financing of business. In 1934 term loans were insignificant as bank assets; by 1940 they had increased to major proportions. By 1942 term loans were playing an important part in the financing of war production.

Term loans fall within the medium-term credit market, defined as including credits of from one to fifteen years' duration. Commercial banks, life insurance companies, the Reconstruction Finance Corporation, and the Federal Reserve banks serve this market.

Term Lending to Business makes a critical examination of term lending, its market, the credit standards and practices relevant to it, its use by borrowers, and its problems for lending institutions.

Studies in Business Financing

Term Lending to Business is the first in a new series on business financing. Early in 1940 the National Bureau of Economic Research as part of its Financial Research Program began the study of changes in the financial structure and behavior of American business since the beginning of the century. This study, known as the Business Financing Project, has been conducted under grants from the Association of Reserve City Bankers and the Rockefeller Foundation.

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TERM
LENDING TO
BUSINESS

Financial Research Program

Studies in Business Financing, 1

NATIONAL BUREAU OF ECONOMIC RESEARCH

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Preface

EARLY IN 1940 the National Bureau of Economic Research, under its Financial Research Program, inaugurated a series of technical studies of the financing of American business. Research activities were supported by grants from the Association of Reserve City Bankers and the Rockefeller Foundation. *Term Lending to Business* is the first publication of the Business Financing Project.

The objectives of this project have been threefold: first, to trace from business accounting records the structural and cyclical changes that have occurred in the financial organization of business enterprise since the turn of the present century; second, to determine the cross-sectional pattern for recent years of business credit demands; and third, to describe the adaptations that financing institutions providing short- and medium-term credit have made over the past decade in response to changing demands for their services.

Work on these objectives was organized into two divisions, one entitled "Changes in the Financing of American Business Enterprise, 1900-1940," concerned primarily with the first objective; the other division, "Contemporary Relations Between Business Enterprise and Financial Institutions," devoted specifically to the second and third objectives.

The collection and analysis of many primary materials has been required for each of the project's divisions, and has made necessary the preparation of a number of special technical studies. Two volumes are now being prepared, on the basis of findings in the technical studies, to provide a broad analysis of the results of the investigation. This volume is one of five technical studies developed under the second division

of the work. Others to be published later will deal with the market pattern of business credit, accounts receivable financing, field warehousing, and instalment financing of commercial and industrial equipment.

Despite the number of institutions now supplying funds to business concerns, and the variety of methods which they employ, a good deal of the literature on banking, including most of the textbooks used in American universities, fails to give an accurate and realistic treatment of the structure and functioning of the supply side of the market for short- and medium-term business credits. In part, this is due to the rapidity with which the market structure has changed. Consequently, the five technical studies mentioned above may be viewed collectively as contributing to our knowledge of major adaptations that the banking system has in recent years made to the changed demands of business for credit.

One of the more important and well-recognized of the adaptations made during the past decade is the term loan. The purpose of this study is to trace the development of this type of business credit, to describe the characteristics of the market wherein term loans are made, to state and appraise the methods whereby lenders seek to limit their risks, and to analyze factors affecting the position of such credits in the American economy. In addition to published financial information, data were secured by Dr. Jacoby and Dr. Saulnier through personal interviews with a large number of loan officers of lending agencies in leading financial centers of the United States and officials of bank supervisory agencies, and through the circulation of a detailed statistical questionnaire dealing with the characteristics of medium-term credit among banks whose officers have memberships in the Association of Reserve City Bankers and among a group of large life insurance companies.

The cooperation that the collaborators have received from officers of commercial banks, insurance companies, Dun and Bradstreet, Inc., the Board of Governors of the Federal Reserve System, the Federal Reserve Banks of New York,

Preface

ix

Philadelphia and Chicago, the Federal Deposit Insurance Corporation, the Office of the Comptroller of the Currency, and the Reconstruction Finance Corporation has been cordial and helpful. We are deeply indebted to the officials and to the agencies represented for the information and materials that they so generously provided. Without such assistance, this study would have been much less comprehensive and adequate.

One of the authors of this study, Dr. Neil H. Jacoby served as a member of the research staff of the National Bureau of Economic Research on leave of absence generously granted by the University of Chicago. The National Bureau takes this opportunity to express its appreciation to the University of Chicago.

RALPH A. YOUNG

Director, Financial Research Program

July 1942

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The authors are grateful to the commercial banks represented in the Association of Reserve City Bankers, and to the five largest life insurance companies, for the time they have willingly given to the preparation of the quantitative data on their medium-term business loans that provide the main statistical basis of the present study. Special thanks are due also to the many officers of commercial banks and life insurance companies who have given generously and patiently of their time in interviews that have enabled the authors to obtain the qualitative information indispensable to the proper interpretation of the statistical materials. Officials of public agencies, especially of the Board of Governors of the Federal Reserve System, the several Federal Reserve banks, the Reconstruction Finance Corporation, and the Federal Deposit Insurance Corporation, have not only made available hitherto unpublished information, but have furnished valuable counsel on the planning of the research work.

Dr. Lorine Pruette has added sharpness to the discussion and lightened the task of the reader by her careful editing of the manuscript.

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Financial Research Program

Table of Contents

PREFACE	vii
AUTHORS' ACKNOWLEDGMENTS	x
LIST OF TABLES	xv
LIST OF CHARTS	xvii
SUMMARY OF FINDINGS	1
1. DEFINITION OF A TERM LOAN	(9-14)
Term Loans Are a Form of Business Credit	9
Term Loans Involve a Direct Relation Between Borrower and Lender	10
Term Loans Are Credits Extended for More Than One Year	12
2. DEVELOPMENT OF TERM LENDING	(15-28)
Relative Growth in Demand for Medium-Term Business Credit Since 1933	15
Reduction in Returns Obtainable by Banks from Investment in Alternative Media	21
Facilitating Activities of Public Credit and Supervisory Agencies	22
3. MARKET FOR MEDIUM-TERM BUSINESS CREDIT	(29-46)
Annual Volume of Term Loan and Private Placement Credit Extended, 1934-40	29

Term Loan Credit Outstanding at Year-Ends, 1934-40	32
Number of Institutions Extending Medium-Term Credit	32
Number of Borrowers	34
Size of Borrowers	35
Size of Loans	37
Industries of Borrowers	39
Division of Risks Among Term Lending Institutions	42
4. CHARACTERISTICS OF TERM LOANS	(47-72)
Term Loans of Commercial Banks	47
<i>Term of Loan</i>	47
<i>Security Taken</i>	49
<i>Use of Funds by Borrowers</i>	51
<i>Repayment Provisions</i>	53
Medium-Term Securities Privately Purchased by Life Insurance Companies	56
<i>Term of Loan</i>	56
<i>Security Taken</i>	57
<i>Use of Funds by Borrowers</i>	58
<i>Repayment Provisions</i>	58
Business Loans of the Reconstruction Finance Cor- poration	59
<i>Term of Loan</i>	59
<i>Security Taken</i>	61
<i>Use of Funds by Borrowers</i>	61
<i>Repayment Provisions</i>	62
Industrial Loans of the Federal Reserve Banks	63
<i>Term of Loan</i>	63
<i>Security Taken</i>	63
<i>Use of Funds by Borrowers</i>	65
<i>Repayment Provisions</i>	66
Changes in Term Loan Characteristics and Lending Practices Since 1934	66
<i>Shifts in Term of Loans</i>	67
<i>Shifts in Size of Loans</i>	67

<i>Shifts in Size of Borrowers</i>	68
<i>Shifts in Use of Funds by Borrowers</i>	68
<i>Shifts in Industry of Borrowers</i>	69
<i>Shifts in Security Taken</i>	69
<i>Shifts in the Taking of Commitments</i>	70
<i>Shifts in Methods of Repayment</i>	70
<i>Shifts in the Splitting of Loans</i>	71
<i>Summary of Changes</i>	71
5. PRACTICES AND TECHNIQUES OF TERM LENDING (73-101)	
Organization and Personnel	73
Methods of Acquiring Loans	75
Formation of Loan Agreements	76
<i>Provisions Relating to Use of Funds</i>	77
<i>Provisions Concerning the Incurring of Indebtedness</i>	77
<i>Provisions Concerning Financial Conditions</i>	78
<i>Provisions Concerning Management</i>	78
<i>Provisions Concerning Books and Records</i>	79
<i>Provisions Pertaining to Acceleration of the Debt</i>	79
<i>Provisions Respecting Collateral Security</i>	79
Credit Standards	80
<i>Commercial Banks</i>	80
<i>Life Insurance Companies</i>	84
<i>Reconstruction Finance Corporation</i>	86
<i>Federal Reserve Banks</i>	87
Credit Appraisal Methods	89
Supervising Active Term Loans	95
Relation of Term Loans to Other Assets of Commercial Banks	96
Diversification of Term Loans	99
Term Loan Reserves	100
6. INTEREST RATES AND COSTS IN TERM LENDING (102-112)	
Interest Rates Charged for Term Loans	102
Costs of Term Lending	108
Profitability of Term Lending	110

7. TERM LENDING IN DEFENSE AND WAR	(113-131)
Scope of War Financing	113
Definition of War Credit	115
Institutions Making Defense and War Loans to Business	116
Term Lending of Commercial Banks in Defense and War	119
War Term Lending of Public Agencies	122
Credit Standards and Procedures in Defense and War Financing	126
APPENDIX A—THE COMMERCIAL BANK TERM LOAN SAMPLE AND ESTIMATES MADE THEREFROM	(135-140)
Character of the Sample	136
Estimate of Term Loans Outstanding of All Commercial Banks During Recent Years	137
Estimate of the Annual Volume of Term Loans Made by Commercial Banks During Recent Years	139
APPENDIX B—THE SAMPLE OF SECURITIES PRIVATELY PURCHASED BY LIFE INSURANCE COMPANIES AND ESTIMATES MADE THEREFROM	(143-147)
Character of the Sample	143
Estimate of the Annual Volume of Medium-Term Issues Privately Purchased by Life Insurance Companies During Recent Years	144
Estimate of Medium-Term Private Placement Credit of Life Insurance Companies Outstanding at the Ends of Recent Years	146
APPENDIX C—SUPPLEMENTARY TABLES	(151-156)
INDEX	157

List of Tables

1. Medium-Term Business Credit of Term Lending Institutions: Annual Disbursements and Year-End Outstandings, 1934-40
2. Percentage of Term Credit of Term Lending Institutions Outstanding at December 31, 1940, Extended With and Without Cooperation of Other Lenders 45
3. Number and Original Amount of Term Loans Held by 99 Commercial Banks About June 30, 1941, by Term at Time of Making 48
4. Number and Original Amount of Term Loans Held by 99 Commercial Banks About June 30, 1941, by Type of Security 50
5. Number and Original Amount of Term Loans Held by 99 Commercial Banks About June 30, 1941, by Use of Funds 52
6. Number and Original Amount of Term Loans Held by 99 Commercial Banks About June 30, 1941, by Industry and Use of Funds 54
7. Number and Original Amount of Term Loans Held by 99 Commercial Banks About June 30, 1941, by Type of Repayment Schedule 55
8. Privately Purchased Securities of Medium Term, Held by 5 Life Insurance Companies at December 31, 1940, by Term at Time of Acquisition and by Type of Security 57
9. Privately Purchased Securities of Medium Term, Held by 5 Life Insurance Companies at December 31, 1940, by Method of Repayment and Year of Maturity 59
10. Number and Amount of Samples of RFC Business Loans Requested and Approved, by Term of Loan to Maturity 60
11. Number and Amount of Industrial Advances of Federal Reserve Banks to May 31, 1935, by Principal Type of Security 64
12. Classification of 50 Commercial Banks by Size and by Percentage of Term Loans to Total Loans and Discounts 97
13. Percentage Distribution of the Number and Amount of Term Loans Made at Different Rates of Interest by Commercial Banks in 19 Cities During Selected Periods From March 16, 1939 Through March 15, 1942 103
14. Percentage Distribution of the Number and Amount of Medium-Term Issues Privately Purchased by 5 Life Insurance Companies During 1937-40 at Different Effective Rates of Interest, and Held on December 31, 1940 106
15. Percentage Distribution of the Total Number and Amount of Defense Contracts Assigned to Different Types of Lending Institutions, February 27, 1941, to January 29, 1942 118

16. Number and Amount of Defense Loans Held by Weekly Reporting Member Banks at April 30, 1941, by Term at Time of Making	120
17. Number and Amount of Defense Loans Authorized by the Reconstruction Finance Corporation to September 13, 1941, by Use of Funds, by Size of Loan and by Type of Product or Service of Borrower	125
A-1. Total Assets and Loans and Discounts of 99 Banks Cooperating in the Term Loan Study, and of Weekly Reporting, Federal Reserve Member, and All Insured Commercial Banks in the United States, at December 31, 1940	136
B-1. Estimated Amount of Medium-Term Securities Annually Purchased Privately by Life Insurance Companies, 1935-40	146
C-1. Percentage Distribution of the Number and Aggregate Amount of Medium-Term Loans Made by Term Lending Institutions, by Total Assets of Borrower	151
C-2. Percentage Distribution of the Number and Aggregate Amount of Medium-Term Loans Made by Term Lending Institutions, by Industry of Borrower	152
C-3. Percentage Distribution of the Number and Aggregate Amount of Medium-Term Loans Made by Term Lending Institutions, by Size of Loan	154
C-4. Number and Estimated Amount of Defense Contracts Assigned, February 27, 1941 to January 29, 1942	155
C-5. Average Amount of Defense Contracts Assigned to Different Types of Lending Institutions, February 27, 1941 to January 29, 1942	155
C-6. Defense Term Loans Held by Weekly Reporting Member Banks of the Federal Reserve System at April 30, 1941, by Use of Funds, by Type of Repayment Provision, and by Assignment or Non-Assignment of Government Claims	156

List of Charts

- | | |
|---|-----|
| I. Percentage Distribution of the Number and Amount of Medium-Term Loans Made by Term Lending Institutions, by Total Assets of Borrower | 36 |
| II. Percentage Distribution of the Number and Amount of Medium-Term Loans Made by Term Lending Institutions, by Size of Loan | 38 |
| III. Percentage Distribution of the Number and Amount of Medium-Term Loans Made by Term Lending Institutions, by Industry of Borrower | 40 |
| IV. Interest Rates per Annum Charged on Term Loans to Business by Commercial Banks in 19 Cities, by Selected Periods, 1939-42 | 105 |

APPENDIX A

**The Commercial Bank Term Loan
Sample and Estimates Made
Therefrom**

A

The Commercial Bank Term Loan Sample and Estimates Made Therefrom

DURING JUNE 1941 letters were addressed to each of 210 commercial banks, whose officers were members of the Association of Reserve City Bankers, requesting detailed information on each term loan held by them on or around June 30, 1941. Eighty-one banks subsequently returned completed schedules in time for tabulation,¹ and 18 additional banks reported that they did not hold a significant amount of term loans. Consequently, the sample consisted of 99 commercial banks, 82 percent of which held significant amounts of term credit at the middle of 1941.

The 81 commercial banks holding term loans in their portfolios returned schedules for 2,820 individual loans, of which 2,764 were complete enough to be included in the tabulations after editing. Of this latter number, 2,607 loans called for the disbursement and repayment of definite sums of money by the borrower in accordance with a pre-determined agreement, and 157 loans constituted "revolving" credits, with respect to which borrowers were granted credit "lines" within which their outstanding indebtedness could fluctuate. These two groups of loans were tabulated separately, the original amounts and unpaid balances at time of reporting being respectively as follows:

	<i>Number of Loans</i>	<i>Original Amount</i>	<i>Unpaid Balances About June 30, 1941</i>
"Regular" term loans	2,607	\$1,679,252,000	\$1,459,560,000
"Revolving" term loans	157	(not tabulated)	110,371,000
ALL LOANS	2,764		\$1,569,931,000

The average original amount of regular term loans was \$644,000, and the average unpaid balance of all loans was \$568,000.

In addition to providing detailed information concerning each term loan held on or around June 30, 1941, the 210 commercial banks were requested to state the total amounts of their term loans outstanding at the end of each year of the six-year period 1935 through 1940. Although 81 banks responded to this request, the returns of only 56 banks

¹ A total of 74 term loan schedules was received from 5 additional banks after September 1, 1941, too late for inclusion in the tabulations.

were complete enough to be used in constructing a time series on annual term loan credit outstanding.

Character of the Sample

The 99 commercial banks cooperating in the term loan study were all comparatively large institutions, only three banks having total assets at March 31, 1941 of less than \$30 million, and only one having total assets of less than \$10 million. Average total assets per bank were over \$300 million, in reflection of the fact that many of the largest American banks were included in the group. Certain salient relationships between the 99 cooperating banks, the approximately 400 weekly reporting member banks of the Federal Reserve System (typical of banks located in the large cities of the country), all Federal Reserve member banks, and all insured commercial banks, are shown in Table A-1. The 99 cooperating banks accounted for over 42 percent of the total assets and 34 percent of all the loans and discounts held by all insured commercial banks at the end of 1940. The ratio of loans and discounts to total assets of the cooperating banks was practically the same as that of the weekly reporting banks, which are almost all institutions of substantial size located in cities of medium and large population. Loans and discounts formed a larger fraction of the total assets of Federal Reserve member banks and all insured commercial banks, since these latter classes included many small institutions wherein personal loans and consumer instalment credits are relatively important. There

Table A-1—TOTAL ASSETS AND LOANS AND DISCOUNTS OF 99 BANKS COOPERATING IN THE TERM LOAN STUDY, AND OF WEEKLY REPORTING, FEDERAL RESERVE MEMBER, AND ALL INSURED COMMERCIAL BANKS IN THE UNITED STATES, AT DECEMBER 31, 1940 (dollar figures in millions)

<i>Class of Bank</i>	<i>Total Assets</i>	<i>Total Loans and Discounts</i>	<i>Ratio of Loans and Discounts to Assets</i>
99 cooperating banks ^a	\$30,676	\$6,537	21.3%
400 weekly reporting member banks ^b	43,441	9,390	21.6
6,486 Federal Reserve member banks ^c	62,658	15,321	24.5
13,491 insured commercial banks ^d	72,704	19,035	26.2
<i>Percent of Cooperating Banks to</i>			
Weekly reporting banks	70.6%	69.6%	
Federal Reserve member banks	49.0	42.7	
Insured commercial banks	42.2	34.3	

^a Compiled from National Bureau data and Polk's *Bankers Encyclopedia*.

^b Total assets figure supplied by the Board of Governors of the Federal Reserve System; total loans and discounts from *Federal Reserve Bulletin* (March 1941) pp. 232-33.

^c Federal Reserve System, *Annual Report of the Board of Governors, 1940*, pp. 48-49.

^d Federal Deposit Insurance Corporation, *Annual Report, 1940*, pp. 140-41.

is no reason for believing that, in the composition of their loans, the 99 cooperating banks differ materially from other large commercial banks. The composition of loans of smaller institutions probably changes materially as size diminishes.

Estimate of Term Loans Outstanding of All Commercial Banks During Recent Years

An estimate of the aggregate outstanding term credit of all American commercial banks could be made with great assurance by sampling banks of different sizes and determining the ratio of term loans to all loans and discounts held by banks of different size classes at different dates. As this procedure was beyond the resources available to the authors, a cruder method of estimation was necessarily utilized. Interviews with many loan officers and bank examining officials, coupled with careful study of the statistical materials, lead to the conclusion that term lending is done most frequently by large banks. This information also indicates that the ratios of term loans to all loans and discounts are, in general, greater among the large than among the smaller banks which do engage in term lending. It is highly probable that the very large number of banks with deposits of \$1 million or less hold only negligible amounts of term loans. The statutory limitation upon the size of loans made by a national bank with \$1 million of deposits does not greatly exceed \$10,000. Term loans of this amount or less are likely to be very uncommon, because of the comparatively large fixed costs of credit investigation and loan administration.

In estimating outstanding term loans of all insured commercial banks at the end of 1940, it has therefore been deemed advisable to separate all banks into three major groups according to size in terms of total deposits. Total loans and discounts of the three classes of insured commercial banks examined were as follows:²

<i>Total Deposits</i>	<i>Number of Banks</i>	<i>Total Loans and Discounts Held During 1940</i>
(1) Less than \$1 million	8,723	\$1,820,000,000
(2) \$1 million to \$10 million	4,168	4,274,000,000
(3) \$10 million and over	546	10,943,000,000
TOTAL	13,437	\$17,037,000,000

With respect to the 546 banks in group (3) it has been assumed that

² See Federal Deposit Insurance Corporation, *Annual Report, 1940*, p. 171. While the FDIC data cover only insured commercial banks that were examined during 1940, non-insured banks and insured banks that were not examined were for the most part banks in the size class (1), omission of which is not believed to result in serious error in estimating term loans outstanding of all commercial banks.

82 percent of the number of banks were engaged in term lending, that term loans comprised 22 percent of the loans and discounts held by term lending banks, and that the average amount of loans and discounts held by term lending banks was equal to that of non-term lending banks. These assumptions rest on the fact that 82 percent of the 99 cooperating banks in the sample held term loans at mid-1941, and that 50 banks within this group reported that term loans comprised 22 percent of their loans and discounts at the end of 1940. Since it was found by the Board of Governors that 83.5 percent of the 400 weekly reporting member banks held some term loans in April 1939, there is some confirmation of the assumption regarding the frequency with which banks in large centers engage in term lending. With regard to the 4,168 banks in group (2), having deposits of \$1 million to \$10 million, it has been arbitrarily assumed that 40 percent were engaged in term lending, and that term loans constituted 11 percent (one-half as large a fraction as for the large banks) of loans and discounts. The assumption that 40 percent of the number of banks made term loans has some basis in the finding of the New York State Commissioner of Banking during April 1939 that 43 percent of all state banks outside New York City had made some term loans. The amount of term lending of banks in this size class appears to be generously estimated on these hypotheses, but even if there is a wide margin of error the total estimates of term loans are not greatly affected. The assumption with respect to the small banks in group (1) is that they held an insignificant amount of term loans and could be ignored in the calculation of the total.

The estimate of term loans held by all commercial banks at the end of 1940 is therefore:

Term loans held by commercial banks with deposits of \$10 million and over	\$1,974,000,000
Term loans held by commercial banks with deposits of \$1 million to \$10 million	188,000,000
TOTAL	\$2,162,000,000

While this estimate is subject to many qualifications, it probably does not err by more than about 5 percent.

In determining the amounts of outstanding term credit at the end of each recent year, recourse was had to the data on year-end outstanding term loans of 56 banks referred to previously. At the end of 1940, the 56 reporting banks held \$967.4 million of term loans, or about 45 percent of the estimated \$2,162 million held by all commercial banks. It has been assumed that at the end of each year of the period, loans held by the 56 reporting banks bore the same proportion to estimated loans of all commercial banks that they held at the end of 1940, upon which assumption the following series is reached:

Outstanding Term Loans Held

<i>Year Ending December 31</i>	56 Reporting Banks—Actual	All Commercial Banks—Estimated
1935	\$215,100,000	No estimate
1936	336,900,000	No estimate
1937	370,300,000	\$827,000,000
1938	484,700,000	1,083,000,000
1939	714,200,000	1,596,000,000
1940	967,400,000	2,162,000,000

Since it is likely that banks which entered the field of term lending at the earliest dates tended to have available and to report more accurate computations of term loans outstanding during preceding years, these banks probably were in fact relatively more important during earlier years than at the end of 1940. The assumption of constant proportionality consequently exaggerates to an unknown extent outstanding term credit of all commercial banks during the early years of the period. It was therefore deemed inadvisable to estimate outstandings prior to 1937, since the error for earlier years grows continually larger. The error is believed to be not so large as to make the estimates wholly unreliable for 1937 and subsequent years. It is worth noting that the \$1,100 million of term loans reported held at April 19, 1939 by weekly reporting member banks of the Federal Reserve System (which hold about 70 percent of all commercial loans of banks in the System) is not irreconcilable with the estimate of \$1,596 million for all banks at the end of 1939.

*Estimate of the Annual Volume of
Term Loans Made by Commercial Banks During Recent Years*

It is possible to make rough estimates of the amounts of term credit annually extended by all commercial banks by assuming that annual loan volume of all term lending banks varied in the same way during recent years as it did for the 99 large banks cooperating in the term loan study. Term loans of all commercial banks outstanding at the end of 1940 have been estimated at \$2,162 million. At the same date, it is estimated that outstanding loans of the 99 cooperating banks were \$1,175 million, or about 54 percent of the total.³ In other words, the loans outstanding of all commercial banks were 1.84 times those of the 99 cooperating banks. It may reasonably be assumed that the ratio of original amounts of loans of the 99 cooperating banks to the original

³ Outstandings of the 99 cooperating banks were \$1,570 million at June 30, 1941, from which may be deducted \$395 million of loans made and outstanding during 1941, leaving a balance of \$1,175 million. (This ignores repayments made during the first half of 1941 on loans made prior to 1941, which in any event are very unlikely to have exceeded \$40 or \$50 million.)

amounts of loans made by all commercial banks was the same as that of their respective outstanding term loans. The following tabulation therefore shows the original amounts of all loans made by the cooperating banks during 1938, 1939 and 1940 and held at June 30, 1941. The estimated loans made by all commercial banks during the same years have been arrived at by multiplying the loan volumes of the cooperating banks by the factor 1.84 for each year.

<i>Year</i>	<i>Original Amount of Regular Term Loans Made by 99 Cooperating Banks and Held at Mid-1941</i>	<i>Estimated Original Amount of Loans Made by All Commercial Banks</i>
1938	\$117,800,000	\$217,000,000
1939	449,600,000	827,000,000
1940	734,900,000	1,352,000,000
TOTAL	\$1,302,300,000	\$2,396,000,000

Since a significant proportion of all term loans made by commercial banks are paid off and disappear from the portfolios of the lenders after three and one-half years, it has not been deemed advisable to carry the estimates back past 1938. Even with this limitation, there is some underestimation of the volume of loans made during 1938, and to a lesser degree during 1939. The original amounts of loans with terms of less than $3\frac{1}{2}$ years made in the former year, and with terms of less than $2\frac{1}{2}$ years made in the latter year, are not included. These errors are believed not to be large.

APPENDIX B

The Sample of Securities Privately Purchased by Life Insurance Companies and Estimates Made Therefrom

B

The Sample of Securities Privately Purchased by Life Insurance Companies and Estimates Made Therefrom

AS A RESULT OF PERSONAL REQUESTS made of their executive officers, five of the largest legal reserve life insurance companies furnished tabulations of privately purchased bonds and notes with terms of 15 years or less at time of issuance held by them at December 31, 1940. To preserve confidential relationships, the names of issuing concerns were not furnished, but information was given concerning the character of the lien (if any), coupon rate, maturity date, year of purchase, amount purchased, amount held at the end of 1940, effective rate at which purchases were made, issuer's main business and total assets at the end of 1940, and participations (if any) with other lending institutions in the credit transaction.

The schedules returned by the five companies listed 217 separate issues held at the end of 1940, with original aggregate amounts of \$824 million at time of acquisition, and outstanding balances of \$761 million at date of reporting. The average original amount of issues acquired was \$3.8 million, and the average outstanding balance was \$3.5 million. Since about half the number and amount of issues privately purchased by insurance companies involved transactions in which other lending agencies participated, and each company reported only the original amount and outstanding balances of its *own* holdings, the data should be interpreted as descriptions of a group of loans made by insurance companies rather than loans received by issuing business corporations. This difference is especially important in considering the size of loans effected through private placements of bonds or notes.

Character of the Sample

The five cooperating companies have purchased and held a preponderance of all medium-term bonds and notes privately purchased by all life insurance companies during recent years; analysis of the characteristics of their holdings at the end of 1940 is therefore believed to be representative of all private placements of medium term (i.e., term of 15 years or less at time of issuance). The importance of the five companies among all life insurance companies active in the private

placement market is indicated by the following figures, showing private acquisitions of bonds of all terms from issuers by the 26 largest legal reserve life insurance companies and by the five cooperating companies, during each year of the period 1932-38.¹

Year	26 Largest Legal Reserve Life Insurance Companies	5 Cooperating Companies	Percentage of 5 Cooperating to 26 Companies
1932	\$33,300,000	\$29,464,000	88.5
1933	16,788,000	15,855,000	94.4
1934	90,647,000	83,622,000	92.3
1935	351,378,000	318,415,000	90.6
1936	327,792,000	254,366,000	77.6
1937	371,353,000	322,430,000	86.8
1938	659,503,000	571,479,000	86.7
TOTAL	\$1,850,766,000	\$1,595,631,000	86.2

Life insurance companies are dominant in the private placement market. Recent studies of the Securities and Exchange Commission indicate that they purchased from 74 percent to 99 percent of total corporate bonds annually sold privately during the years 1934-39.² For this reason, and because the cooperating companies represent so large a fraction of the purchases of life insurance companies active in the field, it appears reasonable to conclude that the characteristics of the loans of the cooperating companies present a reasonably accurate view of private placement credit in general.

*Estimate of the Annual
Volume of Medium-Term Issues Privately
Purchased by Life Insurance Companies During Recent Years*

Although the SEC collected data from the 26 largest American legal reserve life insurance companies on their private acquisitions of bonds from issuing corporations during each year of the period 1928-38, no classification of these acquisitions was made according to term at time of issuance. The proportion of all private placements of bonds and notes with life insurance companies represented by medium-term issues must therefore be estimated. This may be done, on certain not unreasonable assumptions, by the following method:

1. The data furnished to the National Bureau on annual original amounts of medium-term issues purchased privately by the five cooperating companies and held at the end of 1940, were first broken

¹ Data collected by the Securities and Exchange Commission and printed in Temporary National Economic Committee, 76th Congress, 3d Session, *Hearings Pursuant to Public Resolution No. 113* (Washington, 1940) Part 10-A, p. 129.

² Data furnished to the National Bureau of Economic Research by a letter of the Securities and Exchange Commission, dated September 11, 1941.

down according to the original amounts of issues purchased during each year from 1935 onward. Since it is known that about 15 percent of the amount of all issues mature and disappear from portfolios within four years after acquisition, and about 10 percent of the amount of all acquisitions are paid off within two years, in order to estimate the original amounts of all medium-term securities of *all* maturities purchased during each year, the amounts of securities reported to have been acquired during 1935 and 1936 and *held at the end of 1940* were raised by 15 percent, and the amounts of acquisitions during 1937, 1938 and 1939 were raised by 10 percent. Acquisitions during 1940, held at the end of that year, were left unchanged. Since only 23 percent of the amount of medium-term issues acquired by life insurance companies have serial maturities (the remainder being repayable in single amounts), the error of ignoring serial payments is believed not to be large.

2. Utilizing the SEC data on *all* private purchases of the five cooperating companies during 1935 through 1938, ratios were found of the amounts of medium-term issues (as estimated in step 1) to all issues purchased during these years. During the four-year period, 1935-38, medium-term issues formed 26 percent of all securities privately acquired.

3. All issues privately acquired by the five companies during 1939 and 1940 were then estimated by assuming that the medium-term issues (estimated in step 1) were 26 percent (found in step 2) of the amount of all issues.

4. The series on all issues purchased privately by *all* life insurance companies was tabulated by the SEC for each year of the period 1935-38. Since the five cooperating companies purchased 86.2 percent of the amount of securities privately purchased by all companies during the ten-year period 1928-38, the amounts of all issues privately purchased by all companies during 1939 and 1940 were estimated by assuming that all issues acquired by the five cooperating companies in these years (found by step 3) continued to have the same relative importance in the total (i.e., 86.2 percent).

5. *Medium-term* issues privately purchased by *all* life insurance companies were then computed by assuming that the ratio of medium-term to all issues acquired by the five cooperating companies was, in each year, the same as the ratio of medium-term to all issues privately acquired by all companies.

In Table B-1 appear the results of these computations, including the amounts of *issues of all maturities* annually purchased by the five cooperating companies and by all companies, and estimated amounts of *medium-term issues* privately purchased by the two groups of companies during each year. On the assumptions, it appears that life insurance companies acquired privately from issuers during the six-year period

Table B-1—ESTIMATED AMOUNT OF MEDIUM-TERM SECURITIES ANNUALLY PURCHASED PRIVATELY BY LIFE INSURANCE COMPANIES, 1935-40 (dollar figures in millions)

Year	(1) <i>All Issues Purchased Privately by 5 cooperating Companies</i>	(2) <i>Medium-Term Issues Purchased Privately by 5 Cooperating Companies</i>	(3) <i>Ratio of (2) to (1)</i>	(4) <i>All Issues Purchased Privately by All Companies</i>	(5) <i>Estimated Medium-Term Issues Purchased Privately by All Cos. (4) x (3)</i>
1935	\$318.4 ^a	\$49.2 ^b	0.154	351.4 ^a	\$54.1
1936	254.4 ^a	62.1 ^b	0.244	327.8 ^a	80.0
1937	322.4 ^a	134.9 ^a	0.418	371.4 ^a	155.2
1938	571.5 ^a	135.3 ^c	0.237	659.5 ^a	156.3
1939	660.0 ^d	171.4 ^e	0.260 ^f	766.0 ^f	199.2
1940	1,240.0 ^d	323.1	0.261 ^e	1,440.0 ^f	375.8
TOTAL	\$3,366.7	\$876.0	0.260	\$3,916.1	\$1,020.6

^a Securities and Exchange Commission data in Temporary National Economic Committee, 76th Congress, 3d Session, *Hearings Pursuant to Public Resolution No. 113* (Washington, 1940) Part 10-A.

^b Estimated by adding 15 percent to the original amounts of securities which were purchased during this year, and held at end of 1940.

^c Estimated by adding 10 percent to the original amounts of securities which were purchased during this year, and held at end of 1940.

^d Estimated by assuming that medium-term issues purchased during the year were 26 percent of all issues (see footnote e).

^e Weighted average percentage of all private placements purchased by 5 cooperating companies during 1935-38 that were of medium term.

^f Estimated by assuming that the weighted average ratio of purchases of the 5 cooperating companies to all 26 companies during 1932-38 (namely 86.2 percent) obtained during 1939 and 1940.

about \$3.9 billion of securities, of which about \$1 billion represented medium-term credit.³ The rate of growth of insurance company participation in the medium-term business credit market through private placement has exceeded even the rapid pace set by commercial bank term loans.

Estimate of Medium-Term Private Placement Credit of Life Insurance Companies Outstanding at the Ends of Recent Years

The five cooperating life insurance companies held \$761 million of privately acquired medium-term bonds at the end of 1940. If the ratio

³ This estimate is in general agreement with an estimate made by different methods that the total dollar amount of issues placed directly by issuers with all types of investors during the six-year period, 1935-40, was \$4,314 million. See House Committee on Interstate and Foreign Commerce, 77th Congress, 1st Session, *Hearings on H.R. 4344, H.R. 5065 and H.R. 5832* (Washington, 1941) Part II, p. 366.

of their outstanding credit of this type to that of all life insurance companies was the same as the ratio of their acquisitions to that of all companies (86.2 percent), then the amount of medium-term private placement credit of all companies outstanding at the end of 1940 was \$883 million. While this figure can be cited with some assurance, lack of precise knowledge of the rates of amortization of private placement debt makes precarious the estimation of outstanding credit at the ends of earlier years. Since only 9 percent of the original amounts of all issues held by the five cooperating companies at the end of 1940 had terms of less than five years at time of issuance, it would not seriously impair the validity of a very rough estimate simply to take outstandings at the end of 1940 and to deduct the original amounts of issues acquired during that year to obtain outstandings at the end of 1939; and so on, back to 1937. Proceeding by this method, outstanding medium-term private placement credit of all insurance companies may be estimated as follows:

<i>Year</i>	<i>Medium-Term Issues Privately Purchased During Year</i>	<i>Medium-Term Issues Privately Purchased and Held at End of Year</i>
1940	\$375,800,000	\$883,000,000
1939	199,200,000	507,200,000
1938	156,300,000	308,000,000
1937	155,200,000	151,700,000

These estimates are subject to such severe qualifications as to be precluded from any other use than as rough measures of the general position of insurance companies in the medium-term business credit market.

APPENDIX C

Supplementary Tables

Table C-1—PERCENTAGE DISTRIBUTION OF THE NUMBER AND AGGREGATE AMOUNT OF MEDIUM-TERM LOANS MADE BY TERM LENDING INSTITUTIONS, BY TOTAL ASSETS OF BORROWER

Total Assets of Borrower (in thousands)	Number of Loans				Aggregate Amount of Loans			
	Com- mercial Banks ^a	Life Insurance Companies ^b	RFC ^c	Federal Reserve Banks ^d	Com- mercial Banks ^a	Life Insurance Companies ^b	RFC ^c	Federal Reserve Banks ^d
Less than \$5		..	7.4	..		..	•	..
5-10		..	5.6	..		..	•	..
10-20	11.8	..	9.3	12.6	.4	..	.4	.7
20-50		..	14.8			..	.5	
50-100		..	12.9	11.6		..	1.2	1.5
100-250	23.0	..	12.9	30.1	3.7	..	2.5	6.7
250-500		..	5.6	17.5		..	2.0	8.4
500-1,000		..	12.9	9.7		..	12.5	9.7
1,000-5,000	20.5	5.5	11.1	14.6	9.9	1.2	20.6	49.1
5,000-10,000	8.3	6.0	3.7	3.9	7.2	1.9	35.4	23.9
10,000-50,000	15.8	38.3	1.9		22.3	25.4	13.0	
50,000-100,000	5.5	9.2	..	..	13.2	11.1	..	..
100,000 and over	12.0	38.7	..	..	40.0	58.5	..	..
No information	3.1	2.3	1.9	..	3.3	1.9	11.9	..
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a Analysis of loans held by a National Bureau sample of 99 banks on or about June 30, 1941.

^b National Bureau tabulation of securities privately purchased from issuers by the 5 largest legal reserve life insurance companies and held at mid-1941.

^c Analysis of a National Bureau sample of 54 industrial loans approved up to mid-1941 by the Reconstruction Finance Corporation.

^d Analysis of a National Bureau sample of 103 industrial loan applications approved by Federal Reserve banks up to May 31, 1940.

• Less than 0.05 percent.

Table C-2—PERCENTAGE DISTRIBUTION OF THE NUMBER AND AGGREGATE AMOUNT OF MEDIUM-TERM LOANS MADE BY TERM LENDING INSTITUTIONS, BY INDUSTRY OF BORROWER

Industry of Borrower	Number of Loans				Aggregate Amount of Loans			
	Commercial Banks ^a	Life Insurance Companies ^b	RFC ^c	Federal Reserve Banks ^d	Commercial Banks ^a	Life Insurance Companies ^b	RFC ^c	Federal Reserve Banks ^d
Manufacturing	35.5	47.5	60.0	66.2	30.6	45.5	77.8	80.8
Food and products	5.0		12.2	} 9.7	2.8		7.7	} 8.1
Tobacco	.6		.1		2.2	.1		
Textile mill products	2.2		8.5	8.0	1.5		20.0	7.9
Lumber and timber products	1.6		10.7	8.8	.7		12.1	8.2
Paper and pulp	3.2		1.7	1.8	4.0		6.3	2.4
Printing and publishing	3.2		3.7	4.9	1.7		1.3	2.9
Chemicals and allied products	1.7		2.6	2.1	1.8		2.1	1.3
Petroleum, coal and gas products	.3		.3	1.2	.2		.3	5.1
Rubber and products	.8		.4	..	.9		.4	..
Leather and products	.3		1.1	1.5	.2		1.0	1.3
Stone, clay and glass	1.3		3.1	3.3	.7		3.2	2.0
Iron and steel products	3.6		5.0	6.7	4.3		7.2	11.9
Transportation equipment	3.1		1.6	2.5	2.9		9.3	14.8
Non-ferrous metals and products	.8		1.4	1.3	.6		.8	1.6
Machinery	4.1		5.2	6.0	1.9		5.5	6.4
Miscellaneous manufacturing	3.7		1.4	8.4	4.2		.5	6.9

Mining and extraction	11.8	1.8	3.1	1.5	21.3	.7	5.6	1.7
Construction	.7	..	1.7	3.2	.2	..	.8	2.4
Wholesale trade	5.5	..	8.0	10.9	.8	..	2.9	7.1
Retail trade	7.3	8.3	15.4	15.1	4.0	8.6	3.6	5.8
Finance	9.9	20.7	..	..	15.8	26.9	..	..
Public utilities and transportation	20.8	21.7	1.7	1.1	22.7	18.3	4.9	1.4
Service	7.3	•	8.7	2.0	4.5	•	4.0	.8
Agriculture, forestry, fishing	1.2	..	2.4	..	.1	..	.4	..
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a Original amount of term loans held by a National Bureau sample of 99 banks on or about June 30, 1941.

^b National Bureau sample of issues privately purchased by 5 life insurance companies. See Appendix B.

^c All loans to business enterprises (except in connection with national defense) disbursed by the RFC from February 2, 1932, through December 31, 1940. Reconstruction Finance Corporation, *Quarterly Report*, Fourth Quarter of 1940, pp. 62-65.

^d Data on number of applications for industrial advances approved by the Federal Reserve Banks up to May 31, 1940, based on a special tabulation.

^e Service and finance grouped.

Table C-3—PERCENTAGE DISTRIBUTION OF THE NUMBER AND AGGREGATE AMOUNT OF MEDIUM-TERM LOANS MADE BY TERM LENDING INSTITUTIONS, BY SIZE OF LOAN

Size of Loan ^a (in thousands)	Number of Loans				Aggregate Amount of Loans			
	Com- mercial Banks ^b	Life Insurance Companies ^c	RFC ^d	Federal Reserve Banks ^e	Com- mercial Banks ^b	Life Insurance Companies ^c	RFC ^d	Federal Reserve Banks ^e
Less than \$5	} 9.0	} 11.5	37.6	23.5	} .1	} .8	1.9	1.2
5-10			15.9	13.9			2.7	1.9
10-25	} 16.7	} 11.5	19.0	21.8	} .7	} .8	7.3	6.8
25-50			11.2	17.4			9.4	11.3
50-100	10.4		8.1	11.8	1.1		13.4	15.2
100-250 ^f	19.0		4.3	6.0	4.6		13.8	15.1
250-500 ^g	14.0		2.9	3.9	7.4		19.5	18.6
500-1,000 ^h	12.7	11.1	} .6	} 1.7	12.3	1.8	} 10.1	} 29.9
1,000-5,000	16.1	49.3			49.7	29.0		
5,000-10,000	1.6	14.7	} .4	} 1.7	15.5	22.3	} 21.9	} 29.9
10,000 and over	.5	13.4			8.6	46.1		
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

^a Class intervals for commercial banks and life insurance companies are inclusive of the lower limit and exclusive of the upper. For RFC and Federal Reserve banks the intervals are exclusive of the lower limit and inclusive of the upper.

^b Loans held by a National Bureau sample of 99 banks at mid-1941.

^c A National Bureau sample of medium-term issues purchased privately by 5 life insurance companies, and held at December 31, 1940.

^d Loans authorized to business enterprises from February 2, 1932 to December 31, 1940, except for national defense. Reconstruction Finance Corporation, *Quarterly Report*, Fourth Quarter of 1940, p. 61.

^e Loan applications approved up to December 31, 1937. Federal Reserve System, *Annual Report of the Board of Governors, 1937*, p. 61.

^f Interval for RFC and Federal Reserve banks is 100-200.

^g Interval for RFC is 200-500 and for Federal Reserve banks the interval is 200-400.

^h Interval for Federal Reserve banks is "over 400."

Table C-4—NUMBER AND ESTIMATED AMOUNT OF DEFENSE CONTRACTS ASSIGNED, FEBRUARY 27, 1941 TO JANUARY 29, 1942^a (dollar figures in millions)

Cumulative to	Number of Contracts		Estimated Amount of Contracts ^b	
	Number	Index	Amount	Index
February 27, 1941	955	100	\$257	100
May 1, 1941	1,743	183	398	155
May 29, 1941	2,092	219	513	200
June 26, 1941	2,402	252	555	216
July 31, 1941	3,020	316	702	273
August 28, 1941	3,544	371	773	301
September 25, 1941	3,977	416	826	321
October 30, 1941	4,695	492	928	361
December 26, 1941	5,809	608	1,018	396
January 29, 1942	6,609	692	1,091	423

^a Based upon tabulations furnished by the Board of Governors of the Federal Reserve System.

^b Less than half the number of contracts assigned have the amounts reported. Amounts were estimated on the assumption that the average amount of contracts for which amount was not reported was equal to that of contracts for which amount was reported.

Table C-5—AVERAGE AMOUNT OF DEFENSE CONTRACTS ASSIGNED TO DIFFERENT TYPES OF LENDING INSTITUTIONS, FEBRUARY 27, 1941 TO JANUARY 29, 1942^a (in thousands)

Cumulative to	Com- mercial Banks	Federal Reserve Banks	RFC	Other Lending Institutions	All Contracts
February 27, 1941	\$328.0	..	\$154.0	\$27.2	\$288.2
May 1, 1941	253.3	..	160.3	39.8	229.2
May 29, 1941	272.2	..	160.3	35.9	244.9
June 26, 1941	252.5	..	214.7	36.5	230.7
July 31, 1941	257.1	\$68.6	227.4	43.6	229.5
August 28, 1941	237.3	66.4	265.1	43.3	215.9
September 25, 1941	225.5	63.3	241.2	45.4	205.4
October 30, 1941	216.3	57.8	226.9	39.5	194.9
December 26, 1941	190.6	55.6	217.9	42.3	171.9
January 29, 1942	179.3	55.0	194.7	45.4	161.7

^a Based upon tabulations furnished by the Board of Governors of the Federal Reserve System.

Table C-6—DEFENSE TERM LOANS HELD BY WEEKLY REPORTING MEMBER BANKS OF THE FEDERAL RESERVE SYSTEM AT APRIL 30, 1941, BY USE OF FUNDS, BY TYPE OF REPAYMENT PROVISION, AND BY ASSIGNMENT OR NON-ASSIGNMENT OF GOVERNMENT CLAIMS* (dollar figures in thousands)

	<i>Number of Loans</i>		<i>Amount of Loans</i>	
	Number	Percent	Amount	Percent
USE OF FUNDS				
For plant facilities	121	45.0	\$35,908	37.4
For production	109	40.5	40,877	42.6
For both plant facilities and production	39	14.5	19,124	20.0
TOTAL	269	100.0	\$95,905	100.0
TYPE OF REPAYMENT PROVISION				
Non-instalment	109	40.5	\$42,320	44.1
Instalment	160	59.5	53,585	55.9
TOTAL	269	100.0	\$95,905	100.0
ASSIGNMENT OR NON-ASSIGNMENT OF CLAIMS				
With assigned claims	75	27.9	\$29,219	30.5
Without assigned claims	194	72.1	66,686	69.5
TOTAL	269	100.0	\$95,905	100.0

* Based upon data furnished by the Board of Governors of the Federal Reserve System.

Index

- ACCELERATION OF DEBT MATURITY—Provisions for, 79.
- ACCOUNTS RECEIVABLE—Assignments Taken by Reserve Banks, 65, 89; By the RFC, 87.
- AMERICAN BANKERS ASSOCIATION—27n.
- ASSIGNMENT OF GOVERNMENT CLAIMS—121, 126-27, 156.
- “BALLOON” PAYMENTS—Size of Loans with, 53; Resemblance to Sinking Funds of Corporate Issues, 55; Additional Risks of, 55.
- BANK EXAMINATION—Revised Policies and Methods, 26-27.
- BANKING CRISIS OF 1933—Effect on Bank Lending, 16-17, 65.
- BORROWERS—Number of, 34; Size of, 35; Lack of Importance of Small Business, 36; Industries of, 39-42; Shifts in Size of, 68; Shifts in Industry of, 69; “Substandard,” 87. *See also* USE OF FUNDS.
- COLLATERAL SECURITY—76; Relation of Loan Agreement to, 79; Effect of War Program on, 121. *See* SECURITY TAKEN.
- COLM, G.—16n.
- COMMITMENTS—Shifts in the Taking of, 70; By Subsidiaries of the RFC, 114.
- CORPORATE TAXATION—Effect on Demand for Medium-Term Credit, 20.
- COSTS OF TERM LENDING—Comparison with Short-Term Lending, 109.
- CREDIT ANALYSIS—Outline of, 89-95; Purposes of, 91; Use of Independent Experts in, 94; Organization of Formal Reports, 94-95; Under the War Program, 130. *See* CREDIT STANDARDS.
- CREDIT APPRAISAL METHODS—*See* CREDIT ANALYSIS.
- CREDIT STANDARDS—Commercial Bank, 80-84; Bases of, 80; On Oil Production Loans, 83-84; Life Insurance Companies, 84-85; RFC, 86-87; Federal Reserve Banks, 87-89; Under the War Program, 123, 126-31.
- DEFENSE HOMES CORPORATION—114.
- DEFENSE LOANS—Guarantee under Regulation V, 128-29. *See* WAR CREDIT.
- DEFENSE PLANT CORPORATION—114.
- DEFENSE SUPPLIES CORPORATION—114.
- DEPOSIT INSURANCE—Effect on Term Lending, 23.
- DOLLEY, JAMES C.—64.
- DUN AND BRADSTREET—93n.
- DURAND, DAVID—80n.
- EMERGENCY PLANT FACILITIES CONTRACT—Provisions of, 127.
- FEDERAL DEPOSIT INSURANCE CORPORATION—26n, 33n.
- FEDERAL LEGISLATION—Securities Act of 1933, 17-19; Federal Reserve Act, 23, 83; Deposit Insurance, 23-24; RFC Act, 24, 61, 86, 122-23; Real Estate Mortgage Insurance, 25; Ship Mortgage Insurance, 25n.
- FEDERAL RESERVE BANK OF CHICAGO—87n.
- FEDERAL RESERVE BANK OF NEW YORK—63n, 87n.
- FEDERAL RESERVE BANK OF PHILADELPHIA—63n, 87n.
- FEDERAL RESERVE BANKS—Rediscount and Advance Powers of, 23; Financial Characteristics of Loan Applicants, 88; Emphasis on Collateral Security, 89; Variation in Industrial Advance Rates Among, 108. *See* CREDIT STANDARDS, FEDERAL LEGISLATION, FEDERAL RESERVE SYSTEM, INTEREST RATES, LOANS, PARTICIPATIONS, REGULATION V, REPAYMENT PROVISIONS, SECURITY TAKEN, TERM, USE OF FUNDS, WAR CREDIT.

- FEDERAL RESERVE SYSTEM, BOARD OF GOVERNORS OF**—Report of Condition, 93n; Industrial Loan Program, 112n; Regulation V, 128-29. *See* **FEDERAL RESERVE BANKS, FEDERAL LEGISLATION.**
- GARLOCK, FRED L.**—13n.
- HARDY, CHARLES O.**—26n.
HART, ALBERT G.—16n.
HOSTETLER, L. MERLE—101n.
- INDUSTRIES OF BORROWERS**—39-42, 69.
INSURANCE COMPANIES—Entry into Medium-Term Credit Market, 31; Legal Restrictions on Lending, 85. *See* **CREDIT STANDARDS, INTEREST RATES, LOAN AGREEMENTS, LOANS, PRIVATE PLACEMENTS, REPAYMENT PROVISIONS, SECURITY TAKEN, TERM, USE OF FUNDS, WAR CREDIT.**
- INTEREST RATES**—Effect on Demand for Medium-Term Credit, 20; Commercial Banks, 102-06; Insurance Companies, 106-07; RFC, 107; Federal Reserve Bank Industrial Advances, 107-08; Differences in Geographical Areas, 108.
- JACOBY, NEIL H.**—12n, 17n, 51n.
JONES, JESSE H.—39n, 110n.
- LEHMANN, F.**—16n.
- LOAN AGREEMENTS**—Endorsements, 51; Modification, 60; "Fifty Percent" Clause, 62; Formation, 76-79; "Tailor Made," 77; Restrictions on Use of Funds, 77; "Line of Credit," 77; Provisions Concerning Incurring of Indebtedness, 77-78; Financial Conditions, 78, 82-83; Provisions Concerning Management, 78-79; Of Life Insurance Companies, 84-85; Effect of the War Program on, 121.
- LOANS**—Size of, 37-39; Correlation Between Size and Term, 49; Splits Between Insurance Companies and Banks, 56; Shifts in Size of, 67-68; Shifts in the Splitting of, 71; Methods of Acquiring, 75; Statutory Restrictions on Reserve Banks, 83; Statutory Restrictions on the RFC, 86; Lengthening Maturities of, 97; Description of Samples of, 135-40, 143-47.
- LOSS EXPERIENCE**—On Term Loans, 101.
- MANAGEMENT**—Approval of Changes in, 78-79; Appraisal of, 92.
- MAY, A. WILFRED**—16n.
- MEDIUM-TERM CREDIT**—Demand for, 20-21; Supply of Funds for, 21-22; Annual Volume, 29; Outstandings, 30, 32; Institutions Extending, 32-34; Mortgage Loans to Business Concerns, 33; Potential Market for, 35; Competition of Lending Agencies in, 37.
- MERWIN, CHARLES L.**—63n, 88n.
- METALS RESERVE COMPANY**—114.
- METHODS OF REPAYMENT**—Shifts in, 70-71. *See* **REPAYMENT PROVISIONS.**
- MORRIS GLENN K.**—64n, 65n.
- MORTGAGE LOANS**—Insurance Companies, 33, 84; Legal Restrictions on, 85; Credit Standards for, 85.
- NATIONAL INDUSTRIAL CONFERENCE BOARD**—124n.
- NEW YORK**—Report of the Superintendent of Banks, 34n.
- OPERATING POLICIES**—Commercial Banks, 98.
- ORGANIZATION AND PERSONNEL**—Commercial Banks, 73-75.
- PARTICIPATIONS**—Effect of Federal Legislation on, 43-44, 99; Charges by RFC on, 44; Percentage of, 44-45; Magnitude of, 45; Reasons for, 45; Importance of, 86; Under the War Program, 119.
- PRIVATE PLACEMENTS OF CORPORATE SECURITIES**—Resemblance to Term Loans, 10; Reasons for, 11; Advantages, 18-19; Disadvantages, 19; Provisions for Resale, 19; Use of Funds Acquired Through, 58; Serial Maturities, 59; Risks of Nonrepayment, 59; Participations in, 85.
- PROFITABILITY OF TERM LENDING**—110-12.
- PUBLIC REGULATION OF COMMERCIAL BANK INVESTMENTS**—Effect on Term Loans, 27-28.
- RECONSTRUCTION FINANCE CORPORATION**—Financing by Subsidiaries of, 114. *See* **ACCOUNTS RECEIVABLE, COMMITMENTS, CREDIT STANDARDS, FEDERAL LEGISLATION, INTEREST RATES, LOANS, PARTICIPATIONS, REFUNDING, REPAYMENT PROVISIONS, SECURITY TAKEN, TERM, USE OF FUNDS, WAR CREDIT.**

- RECORDS**—Requirements for Keeping, 79.
- REFUNDING**—Commercial Bank Credit, 51; RFC Credit, 62.
- REGULATION V**—128-29.
- REPAYMENT PROVISIONS**—Commercial Banks, 53-55; Life Insurance Companies, 58; RFC, 62; Federal Reserve Banks, 66; Under the War Program, 122.
- RESERVES**—Term Loan, 100-01; Consumer Instalment, 100.
- ROBERT MORRIS ASSOCIATES**—93n.
- RODGERS, CHURCHILL**—19n, 84n.
- RUBBER RESERVE COMPANY**—114.
- SAULNIER, RAYMOND J.**—12n, 17n, 51n.
- SCHMIDT, CHARLES H.**—63n, 88n.
- SECURITIES AND EXCHANGE COMMISSION**—Cost of Flotation of Registered Securities, 18n.
- SECURITY TAKEN**—Commercial Banks, 49-51; Life Insurance Companies, 57-59; RFC, 61; Federal Reserve Banks, 63-65; Shifts in, 69-70; As a Restriction on Further Borrowing, 81; Size of Loans in Respect to, 87.
- SOURCES-AND-APPLICATION-OF-FUNDS ANALYSIS**—Description and Purposes of, 92-93.
- TERM CREDIT**—Agencies, 29, 29n; Rate of Growth, 30-32; Number of Institutions Extending, 32-33; Factors Affecting Bank Investment in, 98; Estimates of Volume of, 135-47.
- TERM LOAN**—Definition, 9-10; Differentiated from Bank Purchases of Instalment Contracts, 11; As Break with Orthodox Banking Theory, 13; Maturities, 14; Growth in Demand, 15; Effect of Industrial Revival on, 16; Influence of Deposit Insurance on, 24; Changes in Characteristics, 71-72; Supervision of, 95; Relative Importance of, 96-97; Relation to Other Assets of Commercial Banks, 96-98; Diversification, 99-100; Industrial Specialization in, 99; Reserves, 100-01; Interest Rates Charged, 102-08; Costs of Making, 108-10; Minimum Size, 109; Profitability, 110-12. *See* **LOANS**.
- TERM OF LOAN**—Commercial Banks, 47-49; Correlation Between Industries and, 48; Life Insurance Companies, 56-57; RFC, 59-61, 123; Federal Reserve Banks, 63; Shifts in, 67; Importance of Maximum, 83; Effect of Restriction of Oil Production on, 84.
- UNITED STATES MARITIME COMMISSION**—25-26n; Guarantee of War Loans by, 128-30.
- USE OF FUNDS BY BORROWERS**—Commercial Banks, 51-53; Life Insurance Companies, 58-59; RFC, 61-62; Federal Reserve Banks, 65-66; Control by Reserve Banks of, 65; Shifts in, 68-69; Changes Under War Program, 121.
- VINER, JACOB**—26n.
- WAGENFUEHR, ALBERT**—77n, 101n.
- WAR CREDIT**—Definition of, 115; Institutions, Extending, 116-19; Extended by Commercial Banks, 119-22; Extended by Public Agencies, 122-26.
- WAR FINANCING**—Scope, 113-15; Through Advance Payments on Contracts, 116-17; Credit Standards and Procedures in, 126-31. *See* **WAR CREDIT, WAR PROGRAM**.
- WAR PRODUCTION BOARD**—128.
- WAR PROGRAM**—Effect on Business Financing of Private Agencies, 114; Term Lending by Commercial Banks Under, 119-22; Effect on Size of Term Loans, 121.

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Term Lending to Business

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