This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Term Lending to Business

Volume Author/Editor: Neil H. Jacoby and Raymond J. Saulnier

Volume Publisher: NBER

Volume ISBN: 0-870-14129-5

Volume URL: http://www.nber.org/books/jaco42-1

Publication Date: 1942

Chapter Title: Practices and Techniques of Term Lending

Chapter Author: Neil H. Jacoby, Raymond J. Saulnier

Chapter URL: http://www.nber.org/chapters/c5754

Chapter pages in book: (p. 73 - 101)

5

Practices and Techniques of Term Lending

SINCE THE REPAYMENT of no loan is absolutely certain, private credit institutions cannot avoid measuring the risks of lending, nor can they avoid adopting a policy regarding the amount of risk they are willing to assume. As a practical matter, this involves, first, the adoption of *credit standards* by reference to which applications for loans may be tested, and second, the use of *credit appraisal methods* in order to determine whether requests for loans meet these standards.[1]

Commercial banks, life insurance companies, and public agencies extending medium-term credit to business concerns have gradually developed specially trained personnel and unique credit standards, along with methods of appraising and limiting term loan risks. The factors that determine the probability of repayment of a term loan differ markedly from those pertaining to a personal loan, a residential mortgage or other forms of credit. Moreover, the large size of individual term loans means that lenders cannot rely upon diversification to any considerable extent to limit their risks, but must attempt to compensate for this by the care with which they scrutinize each loan application.

Organization and Personnel

Very few commercial banks have set up separate departments or divisions charged *exclusively* with the functions of making and controlling all term loans originating in the bank.[2]

[1] It may also entail the provision of reserves, set aside out of income from loans, against which "normal" losses may be charged.

[2] Among a large number of banks located in leading financial centers east of the Mississippi River, whose officers were interviewed by the writers, only one had concentrated all term lending functions in a separate department.

A number of banks have approximated this form of organization by placing a senior officer in charge of all term credits, with the duty of supervising and passing upon term loans originating with other officers. But the majority of American banks that are large enough to have developed a need for specialization of their business loan functions have divided their territories into geographical areas, one of which is assigned to each loan officer. A few large banks organize their business loans on an industrial basis, or combine an industrial with a geographical basis of organization. Whatever method of organization is used, it is generally true that applicants for term loans and seasonal loans will deal with the same loan officer. In short, banks have preferred to adapt their existing organizations to term lending rather than to create new divisions.

This fact does not indicate that bank managements fail to recognize any peculiarity in the credit problems posed by term loans. Many institutions have created special statistical or research departments for the analysis of applications for term loans. It is significant that in some cases these credit analyses are assigned to the analytical units connected with the bond or trust departments of the bank, rather than to the regular credit department.[3] This is evidence of a recognition that term loans should be judged by standards and analyzed by methods appropriate to investments rather than to short-term loans.

As may be inferred from the general absence of special organization for term lending by commercial banks, the personnel engaged in this work consists mainly of regular bank loan officers. The majority of banks that have systematically entered the term loan market on a substantial scale have, however, recruited personnel with investment banking experience. As one experienced bank officer put it, "a special attitude of mind is necessary in making term loans." Many individuals formerly associated with the securities affiliates of large banks

[3] Several banks reported to the writers a plan to merge their credit departments with their departments of statistics and analysis, as a result of expansion of their activities in term lending. This is evidence of a shift in emphasis in credit appraisal methods toward evaluation of long-run earning power.

are now engaged in term loan operations. Some banks have also drawn upon former officers and security analysts of investment banking houses for skills useful in extending longer term credits. Certain banks have employed full time, or retained on a part-time basis, management engineers, marketing consultants, geologists, petroleum engineers, or other types of experts to aid them in sifting loan applications. Expert personnel has been employed with greatest frequency by banks with heavy interests in term loans to oil producers.

Methods of Acquiring Loans

It is probable that the majority of banks having term loans in their portfolios at the end of 1940 did not actively solicit them. The loans were created primarily as a result of requests of borrowers, or in consequence of suggestions made by bankers to borrowers who came to the bank expecting to obtain traditional short-term credit. This implies the existence of more pressure on the demand than on the supply side of the term loan market. Advertising and personal solicitation of prospective term borrowers has been confined to a comparatively few banks in large cities, but these have been among the most active term lenders. Several of these banks have systematically scrutinized financial statements and other information pertaining to businesses contemplating expansion or having high-coupon debt or preferred stock outstanding. Then, through a traveling representative, they have tried to interest these concerns in negotiating term loans. Such activities resemble those of the buying departments of investment banking houses which aim to maintain contact with all concerns likely to require financing.

Many bankers view aggressive loan solicitation with disfavor. They argue that debts actively invited are likely to be of inferior quality. This conclusion does not necessarily follow. A soliciting bank may very well acquire loans of unquestionable merit that would otherwise have been made by competing banks or financing agencies, or never have been made at all (to the disadvantage of both borrower and lender), *providing*

that it does not relax its credit standards or compromise the thoroughness of its credit investigations.

Formation of Loan Agreements

Practically all term loans of commerical banks embody, or are accompanied by, an agreement between borrower and lender that contains covenants by the debtor to conduct his business in prescribed ways and defines the conditions of the loan. Agreements usually contain both positive promises of the borrower to perform specific acts, and "negative pledge" clauses *not* to perform other acts. Although these agreements resemble articles contained in mortgage indentures pertaining to corporate bond issues, they usually go much farther in restricting the conduct of the borrower. Indeed, the comprehensiveness with which borrowers' actions are hedged about is one of the distinguishing features of term lending. It is the device lenders have used to offset the additional uncertainties inevitably present in credits running for medium instead of short terms.

It is felt that the most effective protection of the lender's interests is found not in the real estate, chattels, receivables, or inventory that may be hypothecated, but in the loan agreement that sets up financial and other conditions to be maintained by the borrower and automatically accelerates the maturity of the loan in case of violation. Under such arrangements the lender incurs the trouble and expense of taking liens on assets only if the maturity of the loan is accelerated. National banks are surrounded by such restrictions on real estate loans that they prefer not to acquire them. Neither do most borrowers wish to incur the cost and publicity attendant upon the drawing up and recording of real estate mortgages. In short, the taking of any collateral security entails costs, and the acquisition of real estate mortgages involves especially large costs, which both lender and borrower desire to avoid if possible.

A consideration of the provisions usually contained in term loan agreements throws light on the operating problems in-

volved. Term loans are generally made to enable borrowers to carry out specific programs, and agreements are therefore "tailor made" to fit the circumstances of each case. As few lending agencies make use of stereotyped forms, the great variety of provisions that may be found in loan agreements makes summary difficult.[4]

Provisions Relating to Use of Funds

The majority of agreements made with commercial banks do not tie the borrower down with respect to use of funds arising from the loan, although bank officers customarily know the purposes for which loan proceeds will be used. In contrast to instalment sales financing, term loans are "general purpose" credits, although provisions of the loan agreement may *imply* limitations on what the borrower does with funds coming into his hands. Term loan agreements made with the Federal Reserve banks and the Reconstruction Finance Corporation generally contain rather specific restrictions on the uses of the loan proceeds, undoubtedly because of the impaired financial conditions of many of the borrowers, and because the statutes under which these agencies operate limit the purposes for which loans may be made.

Provisions Concerning the Incurring of Indebtedness

Term loan agreements commonly specify a maximum amount of term credit that may be outstanding at any one time—that is, the maximum loan authorization together with a schedule of repayments. Infrequently, the loan agreement sets up a "line of credit" for the borrower for a specific term of years. About 5 percent of the number and aggregate amount of term loans are revolving credits with fluctuating outstanding indebtedness. Other controls of debt found in the majority of loan agreements include prohibitions against incurring any long-term indebtedness (except with permission of the lending bank)

[4] An excellent list of the provisions commonly contained in term loan agreements, based upon study of a large number of such agreements, may be found in Albert Wagenfuehr, *Term Loans by Commercial Banks* (Robert Morris Associates, Philadelphia, 1940) pp. 27-30.

and against the pledge of any assets without such permission. While this does not give the lending bank the same protection it would have if it took mortgages on real estate or other assets of the borrower, it is protective in the sense that it prevents others from obtaining prior claims to the borrower's assets. It will be observed that this usually leaves the debtor concerns free, within limits, to borrow for seasonal or other short-term purposes, and in fact they do so. Finally, the loan agreement may prohibit the borrower from assuming any contingent liabilities, such as guaranteeing the indebtedness of a subsidiary.

Provisions Concerning Financial Conditions

Among the most frequent provisions appearing in term loan agreements, and perhaps the most important from a credit standpoint, are those calling for maintenance of the current ratio, as defined in the loan agreement, at some specified minimum. This is frequently coupled with a requirement that net working capital shall be kept at or above a specified minimum, the two conditions jointly forming an indirect control of the amount of borrowing. It is evident that the second condition is essential if the lender wishes to assure himself that the net liquid assets of the debtor are to be preserved. Restrictions on amounts permitted to be invested in fixed assets, on dividend disbursements, and on salaries or bonuses paid to executives, also commonly found in term loan agreements, represent endeavors to maintain liquidity and to prevent dissipation of the cash coming to the business. Clearly, controls of borrowing and of disbursements aim at preserving the borrower's equity available in liquid form to discharge the loan when due.

Provisions Concerning Management

Sometimes major changes in management personnel and its compensation are subjected to approval of the lending bank, or changes in management are insisted upon as conditions of granting loans. Often borrowing concerns are required to maintain life insurance of specified amounts, with respect to

principal managerial personnel, proceeds of which are assigned to the lender. Such requirements are especially frequent in RFC term loan agreements. Term loan agreements may also require the owners of the borrowing enterprise to pledge stock or grant proxies to vote stock—all with the aim of ensuring that management shall be adequate during the life of the loan.

Provisions Concerning Books and Records

Nearly all banks insist, as a condition of making term loans, the borrowers maintain adequate records and grant the lender access to them, because only so is it possible to judge the merit of the credit and watch its development. Moreover loan agreements frequently require the debtor to submit certified annual balance sheets and profit and loss statements, and semi-annual, quarterly or even monthly figures. Some agreements ask for the submission of financial budgets for periods of three or six months in advance.

Provisions Pertaining to Acceleration of the Debt

Normally, the agreement provides that all debt becomes due upon the default of any other debt of the borrower, upon failure to fulfil the financial, management, or other provisions of the loan agreement, upon filing of a voluntary or involuntary petition in bankruptcy, or upon suspension of operations for causes other than strikes, as well as upon default in payment of interest or principal of the loan.

Provisions Respecting Collateral Security

If security has been required, the loan agreement specifies the documents necessary, such as real estate mortgages or deeds of trust, chattel mortgages, assignments of receivables or of life insurance, or pledges of inventory. As has been noted, practically all RFC loans and the great majority of Reserve bank loans carry collateral security. In contrast, only about 40 percent of the number of medium-term credits of life insurance companies are collaterally secured. At mid-1941 com-

mercial banks had taken security for 56 percent of the number and 33 percent of the amount of term loans held by them.

Credit Standards

Experienced loan officers recognize that the distinction between an acceptable and an unacceptable credit rests upon the evaluation and combination of so many diverse elements that they never admit the use of any formula in judging credits. They believe that one complex of circumstances appears to justify a loan; another does not. If information were available, term loan credit standards could be inferred from a comparison of the characteristics of loan applications accepted with those of loans rejected. Still another method of determining good credit standards would be to compare the characteristics of loans that proved to be good with those that resulted in losses.[5] These procedures present technical difficulties, and experience with term loans has been too limited to make them feasible at the present time. It is nevertheless possible, through conversations with many officers engaged in term lending, to isolate the factors which are uppermost in their minds when deciding whether to extend medium-term business credit. In general, there are three major subjects with which a term lending institution may be concerned: (1) the borrowing enterprise, (2) the collateral security, if any, (3) other endorsers of the obligation, if any. Since the credit standards of commercial banks differ somewhat from those of insurance companies and government agencies making term loans, it is convenient to deal with these institutions separately.

Commercial Banks

The credit standards applied most frequently by commercial banks to term loans relate mainly to the circumstances of the borrowing business, rather than to collateral security or endorsers of a loan. In many cases where security has been taken

[5] This type of study was made of a sample of consumer credits. See National Bureau of Economic Research (Financial Research Program), *Risk Elements in Consumer Instalment Financing*, by David Durand (1941).

it was not conceived of as the major protection against loss, but rather as a restriction upon further borrowing by the debtor or as a moral stimulant to repayment. With respect to 44 percent of the number (67 percent of the amount) of term loans, the lending bank relies for payment solely upon the performance of the enterprise. In view of this dependence it is commonly the case that term loan agreements require the borrower to maintain his financial position at a level at least as favorable as existed at the time of making the loan. In addition the lending institution provides, in the loan agreement, for certain protective measures if it appears that the borrower's financial position is becoming unsatisfactory. These include the acquisition of liens on assets and the acceleration of the maturity of the note. However, although such measures are provided for, bankers generally do not rely upon the value of assets to liquidate term indebtedness. They do not desire to acquire through foreclosure property that they are usually unequipped to operate or sell advantageously. Their reliance is primarily upon the ability and desire of the debtor to repay the loan out of earnings. Credit standards applied by commercial banks to term loans therefore grow out of standards traditionally applied to short-term loans, and relate principally to the competence and moral character of the management, the concern's financial position at time of making the loan, and its prospective earning power.

With respect to moral character, bankers universally insist that the principals of a business, whether partners or important officers or stockholders in a corporation, display an absolutely "clean" record. In the case of large, well-established corporations, good moral character of principals may usually be taken for granted. No matter how impressive the present and prospective financial position of the enterprise may be, or how valuable the collateral pledged, term loans will not be granted unless the banker is thoroughly satisfied of the borrower's intention to repay his debts. This credit standard is justifiably founded upon the experience that a dishonest or

unscrupulous borrower will find some way of avoiding his obligations, despite the strictest precautions taken by the lender. It has always been applied in making short-dated loans, but is considered particularly necessary in term lending, since incompetence or lack of a sense of moral obligation has a longer period to work out its effects.

There does not appear to be any uniform practice with regard to the standards of present financial position. Commercial banks are naturally unwilling to extend medium-term credit to a concern encumbered with so large an amount of current obligations in proportion to its current assets that financial embarrassment might follow promptly in the wake of some untoward event, such as a plant shutdown or a sharp decline in commodity prices. The familiar 2/1 ratio of current assets to current liabilities has generally been applied as a *minimum* standard in making term loans, although much higher ratios are considered necessary for concerns subject to rapid changes in asset valuations. Moreover, unless unusual circumstances warrant it, bankers commonly refuse to extend term credit to a business that has previously pleged its inventory or receivables to another creditor. The pledge of these assets is regarded as indicating a probability that, according to conservative standards, the business has inadequate working capital. On the other hand, concerns that have previously mortgaged their fixed assets are often granted term loans, provided there is an adequate cushion of equity and an established earning power.

Few banks like to see the aggregate debt of a company exceed the amount that the owners of the business have already invested although in certain industries exceptions are recognized. In industries wherein the values of fixed as well as current assets are comparatively unstable, the ratio of equity to debt is required to be considerably above 1/1. The financial records of the borrowing concern are expected to show an ability to earn the annual percentage on its invested capital that is at least "normal" in its industry. Nevertheless. term

credit may be granted to concerns with poor past performance, if it can be shown that the cause was incompetent management or some other factor, since eliminated or rectified.

It is difficult to state precisely the objective standards of probable future earning power that banks expect applicants for term credit to meet. With certain exceptions, it may be said that a borrower must demonstrate reasonable ability to repay a loan out of available incoming cash, without liquidation of essential assets, and within the maximum term established by the bank. This credit standard—ability to "throw off" enough cash to liquidate the loan at maturity—is also applicable to short-term lending, but since a short-term loan can be liquidated out of collection of receivables, selling down of inventories, or completion of special transactions, it does not require an estimation of earning power over a period of years. Medium-term loans thus present much more difficult credit problems.

Risk inevitably increases with the term of a loan, and estimates of future earning power diminish in accuracy the more distant the date for which they are made. Establishment of a maximum term of loans is thus an important method by which a bank can limit its risks on term loans. Although some banks do not have standards on this matter, many banks will not make loans running over five years, a few banks limit term to three or four years, and still other banks are willing to lend for seven or even ten years. Accordingly, a business concern might be able to secure credit from one institution but not from another, upon demonstrating reasonable ability to pay off a loan within, say, five years.

Standards concerning maximum term of loan have been particularly important in loans to oil producers for the purpose of financing drilling operations. The producer customarily pledges his present producing properties, or the oil produced therefrom, as security for a loan. Many banks follow the practice of requiring borrowers to pay instalments amounting to 50 percent of the sums realized from sale of oil produced on

the pledged properties. Consequently, if a bank had a three-year maximum term for its oil loans, the amount it would lend on a given property would be less than if its maximum term were five years, because the "throw-off" of cash would be less during the shorter period. Restriction of oil production by state conservation authorities also reduces the amount of credit an oil producer can obtain by pledging a given property; other things being equal, this causes pressure to lengthen the term of oil loans.

Life Insurance Companies

Life insurance companies have participated in the medium-term business credit market mainly through their private purchases of securities from issuers, and, to a subordinate degree, through mortgage loans to business concerns. Credit standards applied by them in the private acquisition of corporate bonds or notes have been the conventional ones long utilized by investment bankers, and need not be described herein. In making mortgage loans on business properties, insurance companies have utilized credit standards pertaining both to the earning power of the borrowing business and to the value of the pledged property.

The negotiation of agreements between business corporations and life insurance companies purchasing securities privately has been well and authoritatively described as follows:[6]

> Securities to be privately placed are customarily offered by the issuers or by agents or bankers on their behalf. Preliminary basic terms are determined in conferences between the issuer and the purchaser, and the transaction is then implemented by the negotiation of a purchase agreement, the initial draft of which is customarily prepared by the purchaser. Where practicable, the indenture or supplemental indenture under which the securities are to be issued is attached in draft form to the purchase agreement. If available time does not permit this, the more important provisions of the proposed indenture are summarized in an exhibit to the purchase agreement, which provides that the indenture shall incorporate such terms and

[6] Churchill Rodgers, "Purchase by Life Insurance Companies of Securities Privately Offered," *Harvard Law Review*, Vol. LII, No. 5 (March 1939).

shall otherwise be in a form satisfactory to both the issuer and the purchaser. After the execution of the contract, the purchaser usually prepares a list of documents essential to consummate the transaction, and these documents are then prepared with the collaboration of all parties.

In order to preserve the exempt character of the transaction under the Securities Act, the number of buyers of the issue must be rigorously limited. While the Securities and Exchange Commission has not announced a maximum number of purchasers (any excess of which would make the transaction a "public offering"), up to June 1940 as many as sixteen have participated in the private purchase of an issue. Normally, a separate purchase contract is entered into by the issuer with each buyer.

For many years legislation has restricted insurance companies to the making of loans secured by real estate mortgages, the loans not exceeding two-thirds of the appraised value of the collateral. Up to recent years, practically all such loans have been made to borrowers pledging residential property, farm land, or non-specialized urban property such as office buildings, stores and lofts. For all of these properties there was a comparatively broad market. The credit problem in lending against them was exclusively one of appraising the security, and not one of evaluating the financial strength of the borrower. In extending credit to business concerns secured by mortgages on industrial plants and other "special purpose" properties, insurance companies have necessarily modified their earlier credit standards to the extent of appraising the current and prospective financial strength of borrowers. One large company has created a separate department for making "special purpose" mortgage loans. Before any such loan is approved, it must pass the scrutiny of the real estate department, which seeks to determine whether the value of the collateral is adequate to warrant the loan, and of the security department, which must be satisfied that the loan can be amortized out of the borrower's earnings. This dual test is designed to provide two sources from which repayment could be secured.

Reconstruction Finance Corporation[7]

The Reconstruction Finance Corporation Act limits loans to business enterprises by the following principal conditions:[8]

(a) Capital or credit, at prevailing rates for the character of loan applied for, must not be otherwise available.

(b) Al credits must be "of such sound value, or so secured, as reasonably to assure retirement or repayment."

(c) Disbursements of loans can be made only when the borrowing enterprise is "solvent."

(d) Loans may be made only when they offer reasonable assurance of continued or increased employment of labor by the applicant.

Except for cases where local banking facilities were inadequate, it follows from condition (a) that the credit standards of the RFC were required to differ from those of private institutions. Since loans of "sound value" would in all likelihood be made by private lending institutions, condition (b) in effect requires that RFC loans be secured. Hence, relatively greater emphasis is necessarily placed by the RFC upon the value of collateral security pledged by the debtor.

There have been few, if any, business loans made without commercial bank participation that could have been made by commercial banks if they applied the usual term credit standards. The RFC assured itself that credit was "not otherwise available" to an applicant by offering a prospective loan or a participation therein to the bank with which the applicant had customarily dealt. In some cases where such a bank declined to grant credit it is possible that another bank would have made or participated in a loan, but this appears unlikely in view of the financial characteristics of loan applicants. The majority of RFC loan applicants had very inadequate working capital. In few cases were their current ratios as high as 2/1, and several applicants had current ratios less than 1/1.

[7] This discussion is based upon a detailed review of a random sample of 40 business loan applications authorized by the RFC, and 40 loan applications rejected.

[8] See Reconstruction Finance Corporation, *Circular No. 13*, revised (Washington, 1938).

Ratios of borrowers' debts to net worth not infrequently exceeded 1/1, even on the undoubtedly generous valuations of assets contained in balance sheets submitted by loan applicants. Moreover, the operations of applicants usually had resulted in losses during the majority of years immediately preceding the dates of their applications. Nearly every applicant was heavily in debt to banks, trade creditors, stockholders or suppliers of equipment. As a group, concerns borrowing from the RFC have indeed been "substandard" from a bank credit point of view; loans to these concerns would have involved greater risks than commercial banks could have taken. It was, of course, precisely this class of enterprise that the RFC was given the difficult assignment of assisting.

In cases where a borrowing concern pledged real estate to the RFC as primary security for a loan, it appears that a ratio of 1/1 between borrowers' net worth and the amount of the loan was regarded as a minimum. Where the primary security consisted of inventory, the maximum loan was normally two-thirds of the cost value. If assigned open accounts receivable constituted the primary security, the ratio of face value of accounts to the RFC loan disbursement was a minimum of 1½/1. In a number of cases the RFC authorized loans of certain amounts on the deposit of mortgages on real estate or chattels, and authorized additional disbursements when and as assignments of acceptable receivables with face value 150 percent as large as the additional loans were made by the borrower.

Federal Reserve Banks[9]

Credit standards applied by Federal Reserve banks in passing upon applications for industrial loans have been similar to those of the Reconstruction Finance Corporation in many

[9] This discussion is based upon published reports of the Board of Governors of the Federal Reserve System and of the several Federal Reserve banks, as well as information secured through questionnaires circulated among Federal Reserve banks and an examination of credit files of the Federal Reserve Banks of New York, Chicago, and Philadelphia.

respects. These standards have been shaped in the light of the following statutory restrictions upon Reserve bank loans:

(a) The borrowing concern must be "an established business" located within the district of the lending Reserve bank.

(b) The borrower must be unable to obtain "requisite financial assistance on a reasonable basis from the usual sources."

(c) The loan must be used for "working capital purposes."

(d) The term of the loan may not exceed five years.

Condition (b) carries the implication that the credit standards applied by the Reserve banks must differ from those of commercial banks, unless Reserve bank lending is to be confined to communities wherein private banking facilities are lacking, which has not been the case. It has the same effect as the analogous provisions in the RFC Act. But the limitations on term of loans and use of funds by borrowers are much more rigorous than those prescribed for the RFC. Since Reserve bank credit may not be used for plant expansion or refunding, Reserve banks must ensure that borrowers actually use loan proceeds for working capital.

Analysis of the financial characteristics of applicants for industrial advances of the Federal Reserve banks discloses that their financial condition by the end of 1933 was somewhat poorer than that of the average business concern of comparable size. They experienced greater declines in sales during the 1929-32 contraction period than did average concerns in the same industries, were less likely to show a profit, were more heavily indebted both on long and short term, operated with smaller inventories relative to total assets, and displayed signs of possessing insufficient working capital. About a third of all applicants were approved for an industrial advance, the approved applicants being somewhat larger, more heavily weighed by manufacturing concerns, less heavily indebted, and containing more numerous cases of expanding sales, than the rejected applicants.[10]

[10] See National Bureau of Economic Research (Financial Research Program), *Capital and Credit Requirements of Federal Reserve Bank Industrial Loan Applicants*, by Charles L. Merwin and Charles H. Schmidt (ms. 1941).

Because they deal with concerns financially less resistant to adversity, Reserve banks necessarily place relatively greater emphasis on collateral security. First mortgages on plant and equipment, assignment of accounts receivable, pledge of inventory, assignment of cash values of life insurance, and endorsements of principal officers or stockholders have all been sought by Reserve banks to bolster their positions and lessen the probability of loss. Appraisal of these assets has been given more weight than commercial bankers usually allow in determining whether credit should be granted. In some cases, Reserve banks have made term loans of given amount on the security of fixed assets, and, in addition, have extended short-term credits against the assigned accounts receivable of a borrower to meet his temporary credit needs. In such cases, the standard ratio of face value of pledged receivables to the amount of the loan was 1½/1.

Credit Appraisal Methods[11]

The particular credit standards applied in making term loans have been accompanied by the use of special methods of credit appraisal. In extending medium-term credit, bankers look beyond seasonal or temporary business transactions of the borrower, and expand their credit investigations beyond the limits that are usually set in making short-term loans. The influence of business cycles and of long-term economic forces upon the financial position of the borrower is carefully weighed. Moreover, term credit analysis, although strongly resembling that used by investment bankers, differs from the techniques applied to public issues of corporate bonds or notes. As term loans and debt securities privately purchased from issuing concerns are not marketable assets, lenders cannot look to factors directly affecting market prices, except where the borrowing concern has a similar issue of securities outstanding in the hands of the public. Since a lending institution often cannot look to a public market for a continuing appraisal of

[11] This section is based upon numerous interviews held by the authors with officers of lending institutions in charge of term lending operations.

the borrower's credit or the liquidation of a loan, it must increase its requirements with respect to quality and augment the care with which it scrutinizes such credits.

In their broad outlines, credit appraisal techniques used by Federal Reserve banks and the Reconstruction Finance Corporation have not differed from those of commercial banks or insurance companies. A term loan credit analysis conducted by any type of institution may include the following steps:

1. Acquisition and analysis of credit information obtained from mercantile agencies, competitors, customers or suppliers of the applicant.
2. Acquisition and analysis of financial statements of the applicant extending over the most recent seven, ten, or more years.
3. A survey and report, often by an "outside" engineer, upon the physical condition and technical efficiency of the applicant's plant and equipment, and his costs of production in comparison with those of other concerns in the same industry. The fact that most banks in term lending have extended credit only to prime or near-prime risks has made for less elaborate investigation. But when term lending becomes more general, engineering reports, etc., may be more widely used.
4. A survey and report, sometimes by retained merchandising experts, upon the market for the applicant's products and upon the effectiveness of his sales promotional and advertising methods.
5. Preparation of an organized file or report embodying all of the preceding data, together with the conclusions and recommendations of the loan officers in charge of the matter. This document is intended for review by the discount committee or board of directors of the lending institution.

Such an analysis represents the *maximum* scope of an investigation and is not to be considered typical. The different components do not form part of the routine of all term lending institutions, are not applied to all term loans, and are not necessarily taken consecutively, Most banks have not developed so elaborate a procedure, and even those making use of

a "full dress" credit investigation do so only for loan applications that, because of exceptionally large amount, mediocre financial position of the applicant, or unusual nature of the applicant's business, require a very careful appraisal. In fact, the majority of large banks have long possessed files of information concerning important business enterprises, and are in a position to render credit decisions *prior* to making investigations or formulating the specific provisions of loan agreements. Obviously, a detailed procedure is only justified with respect to loans yielding a large enough gross income to defray relatively high costs of administration. Loans may yield comparatively large gross income because they carry high interest rates or because they are large in size.

Whatever its scope, the broad purposes of a term loan credit investigation are twofold: first, to estimate the probability that the applicant will repay the loan at all; and second, to determine the period of time within which he will be able to extinguish the debt. Since this period is necessarily more than one year, the financial position of the borrower must be forecast for several years in advance and not merely through the seasons of a year.

After a banker has satisfied himself, through his own experience and knowledge as well as through checks made with mercantile agencies, competitors, suppliers or customers of the applicant, regarding the integrity and responsibility of the principals of a business, his next task is to appraise the industrial strength of the enterprise. The salient questions in his mind are likely to be: Is the industry of which this firm is a member experiencing long-term growth, or is it subject to such basically adverse shifts in costs of production and demand for its products that even the best management will have difficulty in overcoming them? Furthermore, even if the industry as a whole is likely at least to hold its own in the economy during the life of the loan, has the applicant concern a well-established place in that industry? An answer to the first question can be found through general industrial analysis in which the banker will bring to bear his general knowledge and ob-

servations of fundamental economic trends. To this end, some banks have made comprehensive industrial studies, utilized in connection with all loan applications coming from members of a particular industry. A solution to the second question may be deduced by considering the competitive position of the applicant in relation to other enterprises in the industry, especially with regard to costs of production and public acceptance of the product.

It is in connection with this latter question that an appraisal of management becomes crucial. The ability of an enterprise to hold its own or to make progress in a changing economic environment depends to a large extent upon the competence of its management in relation to those of competitors. No lender can possibly foresee all the future circumstances that will affect the fortunes of the borrower. But if he has satisfied himself of the superior ability of the management, he can reasonably expect that appropriate adjustments will be made. Appraisal of management is the touchstone of term credit analysis.[12] While one pragmatic test of managerial ability is the concern's record of profitability, revealed by financial statements, many bankers also secure brief biographies of directors and principal officers, and study changes in directing and operating personnel for the purpose of measuring the stability of management and its freedom from internal dissension. To this end, some banks set up year-by-year listings of directors, officers, and principal stockholders covering periods up to ten years.

Nearly all lending institutions require an applicant to submit comparative financial statements, both balance sheets and profit-and-loss accounts, extending over the most recent seven or more years. These data are then frequently transcribed on special analytical forms, facilitating a year-by-year comparison of the financial position of the concern. It is common for bankers to make a sources-and-application-of-funds analysis, utilizing balance sheets at the ends of successive years, for the

[12] As one banker stated to the authors: "Bad management can't wreck a good business so badly that it won't be able to pay off its six-month note, but it can easily cause default upon a four- or five-year term loan."

purpose of determining the nature and magnitude of changes in the financial structure of the concern, and to indicate what reductions of particular assets or increases in certain liabilities ("sources" of funds) were made for the purpose of increasing other assets or reducing other liabilities ("applications" of funds).

Such analysis is generally directed to a calculation of the normal annual earning power of a business, and more particularly to its annual cash gain. The latter amount may be used as a measure of the ability of a concern to "throw off" cash annually in repayment of a term loan, and often determines whether or not a loan is to be granted, and if so, the term of the credit. As a rough measure of the annual cash "throw-off," which gauges the ability of the borrower to make periodical repayments, many banks use the annual net income *before* depreciation allowances, sometimes adjusting it for capital needs of the business and income tax requirements.

From balance sheets and income-and-expense statements, financial ratios for each year-end or semi-annual period are also computed, such as current assets to current liabilities, debt to net worth, net earnings to invested capital, sales to inventory, sales to fixed assets, and many others, Such ratios may not only indicate the temporal progress of the concern but also, through comparison with "normal" ratios of the industry of which it is a member, throw light upon the concern's competitive position.[13]

No matter how skillfully and ingeniously performed financial statement analysis has limitations as a technique of credit appraisal. Fundamentally it is a systematic survey of the historical record of the concern, and does not necessarily signal the course of future development, although it has evidential value. Recognizing this, bankers supplement it with other devices. Frequently they require financial budgets from an applicant, indicating how the proceeds of the loan will be utilized,

[13] Average financial ratios for many different industries have been computed by Dun & Bradstreet, Inc., and the Robert Morris Associates, and appear in the *Survey of American Listed Corporations*, published by the Securities and Exchange Commission.

and serving as a standard against which subsequent performance may be compared. In adition, as indicated above, they seek to assess the physical condition and operating efficiency of the borrower's producing properties, the character of the market for his products, and the effectiveness of his sales promotional and advertising methods.

In passing upon larger term loans, it is not uncommon for bankers to seek the opinions of independent experts, as investment bankers long have done. This occurs with particular frequency in the making of loans to oil producers, since the banker, usually relying to an important degree upon the value of the producing properties pledged by the borrower, faces a highly technical problem of valuation. In valuing such collateral, a bank usually secures an opinion from an independent petroleum geologist, familiar with the geological structures of the territory, regarding the probable amount of potentially recoverable oil reserve in the ground. From a petroleum engineer the bank then procures an estimate of the costs of recovering this oil, the amounts of periodical recovery, and the selling price per barrel; from all of these data probable annual net incomes may be estimated. By discounting these future net incomes to the present, through use of an appropriate discount factor, the present value of the pledged property may be estimated. Some banks operating extensively in this field employ their own full-time experts, and at least one large commercial bank maintains a department of petroleum economics, staffed by a geologist, a petroleum engineer, and a petroleum economist. The making of term loans on coal or natural gas properties involves the use of analogous procedures.

All the data collected during the course of a term loan investigation are usually organized into a formal report, similar in content to the reports of underwriting investigations made by investment bankers. These documents, comprising a hundred or more typewritten pages with respect to a loan of large size to a borrower in an unfamiliar industry, are studied by the loan committee or board of directors of the lending institution. The practice of the RFC, which has the task of

passing on thousands of comparatively small loan applications, is to summarize the date in a "review committee report" of about ten or fifteen pages, which is submitted to the board of directors for action. In a small bank which has only a few loan executives, each of whom has intimate knowledge of the business enterprises in the community, formal presentation of a report upon a loan application may often be dispensed with.

Supervising Active Term Loans

The task of term loan administration is not complete when the executives of the lending institution have authorized disbursement of money to the borrower. Apart from the necessary accounting routines of collecting interest and instalments of principal on or before their due dates, lenders usually make a continuing analysis of the financial progress of the indebted business. In order to secure information that will make such analysis possible, many banks write into term loan agreements or have understandings with their borrowers that monthly, quarterly or semi-annual financial information will be furnished. In addition, some lending institutions request monthly budgets for periods of three to six months in advance, so that loan officers can be apprised of the business plans of the borrower and can judge the degree to which those plans are adhered to. Banking practice calls for a periodical review of each loan, in the light of all the factual information coming into the borrower's credit file, so that violations of the loan agreement may be promptly detected or any developments inimical to the interests of the bank (or the borrower) may be drawn to the borrower's attention and corrected.

It is the regular practice of many banks to have a representative visit the place of business of the borrower periodically, to discuss his new products and his production or marketing plans and problems. Out of such meetings often emerge suggestions valuable to the business executive as well as information of use to the banker. The objectives of such follow-up activities are to assure discharge of the provisions of the original term loan agreement, and to maintain contact

with the borrowing concern regarding its future credit requirements.

Relation of Term Loans to Other Assets of Commercial Banks

The estimated $2,162 million of term loans held by all American banks at the end of 1940 comprised about 12 percent of total loans and discounts of all kinds. Term loans were, nevertheless, relatively much more important to commercial banks as a form of *direct business* credit than this figure indicates. They comprised no less than 32 percent of the "commercial and industrial" loans held by commercial banks, a loan category which includes most business loans but excludes open market paper, agricultural and real estate loans, loans to banks, loans to brokers, dealers and individuals collateralized by securities, personal loans and loans to financial institutions (other than instalment financing companies) and nonprofit organizations.[14]

While term loans hold an increasingly significant position among the loans of all commercial banks, they are even more important components of the loans of large banks. As has already been observed, large banks engage in extending term credit with greater frequency and tend to accumulate larger amounts of term loans in proportion to their deposits or assets than do smaller institutions. Table 12 gives the percentages of term loans to all loans and discounts held by a sample of fifty large commercial banks, classified into size groups according to loans and discounts held. Collectively, these banks held about $800 million of term loans which formed 22 percent of their total loans and discounts; for five large banks term loans were 30 percent or more of all loans and discounts. It appears

[14] See *Instructions for the Preparation of Reports of Condition* by State Bank Members of the Federal Reserve System (Board of Governors of the Federal Reserve System, Washington, 1938 Revision) pp. 11-13. About 83 percent of the number and 94 percent of the amount of all term loans held by the sample of 99 commercial banks used in this study (see Appendix A) were classified as "commercial and industrial loans" in reports of condition submitted to bank supervisory authorities. About 41 percent of the number and 63 percent of the amount of even those loans secured by real estate, at least in part, were so classified, although banks are instructed to report these as "real estate loans."

Table 12—CLASSIFICATION OF 50 COMMERCIAL BANKS BY SIZE AND BY PERCENTAGE OF TERM LOANS TO TOTAL LOANS AND DISCOUNTS[a]

Percentage of Term Loans to Total Loans and Discounts	*Number of Banks Having Total Loans and Discounts on June 30, 1941 of* (in millions)						
	Less than $10	$10–$25	$25–$50	$50–$100	$100–$250	$250 and over	Total Number
Less than 5 percent	6	4	7	1	1	1	20
5–10 percent	1	3	3	2	..	..	9
10–20 percent	1	2	4	4	1	..	12
20–30 percent	..	..	2	..	1	1	4
30 percent and over	..	..	1	1	1	2	5
TOTAL NUMBER	8	9	17	8	4	4	50

[a] National Bureau sample of 50 commercial banks having some term loans outstanding at the end of 1940. Size of bank measured by loans and discounts as of June 30, 1941.

likely that term loans to business enterprises comprised not far from two-thirds of the amount of "commercial and industrial" loans in the portfolios of these fifty large banks at the end of 1940—a striking reflection of the changes that have occurred in the credit relationships between larger banks and business enterprises during the past decade. Table 12 indicates great dispersion in the relation of term credit to total loans among large commercial banks, although there is a tendency for the largest term-lending banks to have relatively larger fractions of their loan portfolios in the form of term loans than is the case for smaller institutions in the group.[16]

The lengthening of the maturities of bank credit extended to business has been a matter of concern to a number of bankers. Other things being equal, loans of medium term undeniably carry larger risks to lenders than do loans of short term. Moreover, term loans are less liquid assets in several respects than either short-term loans or investments in marketable securities. Consequently, bankers whose institutions have been active in term lending have given thought to the maximum

[15] Total assets or total deposits would have formed a preferable measure of size of these banks, but this information was not available.

amount of term credit their banks should have outstanding; a few of them have laid down rules-of-thumb limiting outstanding term loans to fixed amounts or to certain percentages of total assets, total deposits, time deposits, or bank capital. There is an understanding in one bank, for example, that outstanding term loans shall not exceed 10 percent of total assets, which would normally be about 30 percent of total loans.[16]

The industrial character of its territory and the attitudes and training of its personnel are major factors in determining the aggregate amount of term loans a bank can develop. Given these factors, bankers consider the following points in deciding the proper amount of term credit they should have outstanding at any one time:

1. *The degree of stability in turnover of deposits.* Banks possessing a comparatively high degree of stability in the rate of turnover of their deposits obviously are better able to increase medium-term loans, other things being equal, than institutions that face erratic flows of cash.

2. *The ratio of capital to deposits.* Since term loans are assets with less liquidity than cash or government securities, a bank with a comparatively small capital "cushion" under its deposits will tend to limit term lending more rigorously, other things being equal, than one which has comparatively large capital out of which losses could be met.

3. *The quality and maturities of other assets.* Institutions holding relatively large amounts of long-term bonds, particularly issues of less than prime quality or issues with poor marketability, more severely limit the amount of their term loans, other things being the same, than banks whose other assets consist in relatively large measure of highly liquid, prime-quality, or short-term obligations. Conversely, banks that have acquired relatively large portfolios of term loans have readjusted the qualities and maturities of securities in their

[16] It may be noted, in passing, that American banking legislation has imposed certain limits upon the amounts of credit of given type that banks may have outstanding. For example, a national bank may not have loans outstanding secured by real estate of an amount greater than 60 percent of its capital or surplus, or the sum of its time deposits, whichever is greater.

investment portfolios in order to bring about the desired distributions of their total earning assets.

Diversification of Term Loans

American banking laws and bank supervisory authorities have long required some degree of diversification in the loans of commercial banks. The National Bank Act did so by implication when it limited the amount of credit obtainable by any one borrower to not more than 10 percent of a bank's capital and surplus. State banking laws commonly contain somewhat similar provisions. In practice, few banks are willing to make term loans up to their legal limits, preferring to sell participations or to seek the cooperation of other lenders in very large loans. While statutory limitations on loans to single borrowers have frequently made it necessary for banks to cooperate in term lending, there are many cases where cooperation has occurred only because self-imposed rules of banks restricted the amounts of individual loans they would make to considerably *less* than the amounts allowed by law. The well-developed facilities for cooperation among lenders in the medium-term business credit market, to which reference has been made previously, make it possible for any bank confronted with an application for a loan larger than permitted by the law or its own policy to invite other institutions to share the risks.

Apart from diversifying their term loans among borrowers, commercial banks generally seek to spread risks among industries. Few, if any, banks have adopted specific formulae of industrial diversification. In fact, some banks have placed relatively large amounts of term credit in those few industries for which their past experience has developed an unusual capacity for the appraisal of credit risks. There is a tendency for commercial banks to become specialists in extending medium-term credit to concerns in particular industries, just as certain investment banking houses have become industrial specialists. Industrial specialization in originating term loans is not, of course, necessarily accompanied by similar specializa-

tion in the loan portfolio. Such a bank may offer other institutions participations in its loans, receiving from them, in turn, opportunities to participate in loans made to concerns in many industries.

Term Loan Reserves

Among a large number of banks located in major financial centers of the United States, with whose officers the question was discussed, no bank had created a special reserve to meet losses from term loans. Traditional American banking practice has been to set up out of earnings a general "reserve for contingencies" against which is charged losses realized upon the disposition of any kind of assets. When a particular loan is criticized by a bank-examining authority and classified as "doubtful" in value, a bank generally sets up a special reserve against the prospective loss on that specific loan. It is very uncommon for banks to maintain reserves for single classes of loans, with one major exception: A growing number of banks are creating special reserves against losses from consumer instalment credits, by setting aside out of earnings one-half percent (more or less) of the annual volume of such loans until the reserve is built up to a point deemed adequate to cover losses that may accrue in the future.

While bankers generally recognize that loss in term lending is a real contingency, there are certain difficulties in establishing reserves for term loans. The chief of these difficulties is lack of knowledge of the "normal" ratio of losses to volume of term credit extended. In extending consumer instalment credit, banks engage in a large number of comparatively small transactions, each completed within a short period of time. As a result, there accumulates a volume of experience adequate to form the basis for a reasonably accurate judgment concerning the normal loss ratio. In term lending, on the other hand, comparatively few loans are made but they are of large amounts and extend for long periods. Thus, the fund of experience is as yet too limited to permit of a scientific solution of the reserve problem.

The experience of financial institutions in holding small corporate bond issues during the period 1922-28 has some evidential value with respect to term loans, but cannot be regarded as determinative of the probable term loan loss ratio because of many differences in characteristics and circumstances under which these credits were granted. After surveying the default and loss record of some 385 public issues of corporate bonds of $5 million or less during this period, one investigator concluded that at least 1 percent of the unpaid balances of term loans should annually be set aside out of earnings as a minimum reserve for eventual losses.[17] Since the weighted average interest rate charged by commercial banks on term loans during the first six months of 1941 was about 2.5 percent per annum, adoption of this suggestion would absorb about 40 percent of the gross income from term lending.

A further difficulty of establishing special term loan reserves, often cited, is that the process of accumulation would bear especially hard on the net profitability of term lending in view of present rates on term loans, and would impair the ability of banks to build up capital commensurate with increasing deposit liabilities. The latter follows from the fact that, although there is no uniform policy on this point, bank supervisory agencies do not generally include loss reserves as part of a bank's net sound capital. It may be observed, however, that if some losses *do* occur in the normal course of term lending operations, capital positions and bank earnings would undergo more severe and less convenient readjustments in the absence of a reserve than if a reserve had gradually been accumulated to absorb the shock of large, sudden losses. The amount of any term loan reserve would necessarily be geared to losses resulting from individual cases of misfortune or bad judgment. The current earning position of a bank could never be protected against catastrophes resulting from such powerful adverse forces as affected the whole economic structure during 1929-33.

[17] Report of L. Merle Hostetler prepared for the National City Bank of Cleveland, Ohio, cited by Albert Wagenfuehr, *op. cit.*