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BANK CREDIT

A STUDY OF THE PRINCIPLES AND FACTORS UNDERLYING ADVANCES MADE BY BANKS TO BORROWERS

BY

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PREFACE

The purpose of this study is two-fold: to develop the principles of bank credit considered in the abstract and to set forth the main factors underlying the loans made, the credit extended, by banks to borrowers.

Part One is devoted mainly to an explanation of the way in which cash in banks becomes the basis of manifold loans and deposits, and to a statement of the relation of loans to the other principal items of the bank balance sheet.

The burden of Part Two is a consideration of the factors underlying and affecting the soundness of the contents of banks' portfolios. It has seemed natural and logical to give a somewhat detailed account of recent changes in our bank credit arrangements, including the evolution of the form of the bank borrower's obligation, the growth of the note brokerage business, the establishment of the bank credit department, and the rise of the new business department and its effects on the quality of bank loans. The work of note brokers acting as middlemen between borrowers and banks has been given what seems a deservedly large place.

The structure of Part One is built in part on old and familiar foundations, and in part on foundations newly laid. The main sources of Part Two are the Proceedings of the American Bankers' Association, pro-

ceedings of the various state bankers' associations, reports of the Comptroller of the Currency, and banking periodicals. Information embodied chiefly in chapters VII–XI and XVI, and unobtainable from the ordinary sources, was secured by extensive correspondence and interviews with bankers and note brokers, to whom my sincere thanks are due.

For invaluable suggestions I am grateful to Professors Ray B. Westerfield, Fred R. Fairchild and Irving Fisher, of Yale.

CHESTER A. PHILLIPS

HANOVER, N. H.

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FOREWORD TO TEACHERS

The main circumstance prompting the publication of this volume is the lack of any work well designed to familiarize the student with the theory of banking in both its abstract and concrete aspects. At a time when banking policy promises for years to come to be the continuing source of many of our most vital economic problems, the value of a mastery of banking theory becomes apparent and method of study important. The author believes that mastery can be gained most advantageously through the solution of questions and problems directly related to the text studied and accordingly presents extensive "Questions, Exercises, and Problems" in Appendix A.

Many of the questions, exercises, and problems are integrated with the text and the numerous teachers who rely chiefly on the Socratic method may profitably direct considerable attention to their solution, notably, in connection with chapters II, III, VI, VIII–X. It would be conducive to thoroughness if chapters II and III and the corresponding portions of Appendix A were broken into not fewer than five assignments, *e. g.*, as follows:

1. Pages 13–29 and relative questions and problems 1–16.

2. Pages 29–31 and relative questions and problems 17–26.

3. Pages 32–51 and relative questions and problems 1–10.

4. Pages 52–63 and relative questions and problems 11–25.

5. Pages 63–74 and relative questions and problems 26–37.

The method of handling other works used jointly with *Bank Credit* may be passed over without comment except that a preliminary study of the bank balance sheet and of clearing and collection facilities and methods would be desirable, although not essential. The familiar texts of Dunbar, White, Holdsworth, Scott, and Moulton contain suitable introductory or collateral material.

It is in place to say that the purpose of the sharp conflict of theory with theory in chapters III and V is primarily not to expose the fallacy of the false, but to demonstrate, clarify, and enforce the truth of the true.

BANK CREDIT

BANK CREDIT

CHAPTER I

INTRODUCTION

The Nature of Bank Credit

Bank credit, as the term is used in this volume, stands for credit extended by banks to borrowers. Bankers frequently use the term in the plural, meaning advances made to their borrowing customers. Whether the borrower withdraws the amount of the proceeds of his loan in cash at once or leaves it on deposit with the lending bank, the loan in either case constitutes credit extended. Just as a merchant extends credit to the customer who pays for his purchase at a later time, so the banker extends credit to the business man who borrows money. Whether the money is taken from the bank at the time the loan is made, the next day, or ten days later, makes no essential difference; bank credit may take even the form of an overdraft.

The Bank Acceptance as Bank Credit

The bank acceptance, which is a draft or bill drawn upon and accepted by a bank, differs from a loan in the fact that the accepting bank makes no actual advance of funds; it meets its obligation at the maturity

of the draft out of funds provided by the drawer. The accepting bank has faith in the willingness and ability of the drawer to provide the funds required to meet the draft when it matures, but the liability assumed is essentially contingent, the advance being made by the bank or discount house that *buys* the bill.

A bank with low reserves may be disinclined to make a loan, but quite willing to accept a draft that is payable at a future date out of funds provided by the drawer. The accepted draft, being the obligation of a bank, finds a market wherever banks have redundant funds. The bank acceptance, therefore, works in the direction of a more nearly complete equilibration of demand for and supply of the purchasing power that banks make it their business to lend. The accepting bank buttresses the credit standing of the drawer, who then secures the funds desired from a lending institution. An acceptance credit has an important direct influence upon neither the deposits nor reserves of banks; actual advances affect both items directly. Hence, from the standpoint of banking theory, the acceptance credit is *comparatively* unimportant.

Are Deposits Bank Credit?

It happens, also, that borrowers extend credit to banks, when either cash or the proceeds of loans are lodged with their banks. Deposits are obviously closely related to loans, both in an individual bank and in a banking system, but that close relationship scarcely justifies the application of the term bank credit to deposits. Whether arising from the lodgment of cash or of the proceeds of loans in a bank, deposits represent

credit extended by the bank's customers to the bank. However, partly out of deference to the reader who may insist that deposits also are bank credit, and partly because of the close relation of deposits to loans, a discussion of the deposit item in its relation to loans, surplus and cash is given in later pages.

Bank Credit vs. Commercial Credit

The fundamental factors affecting the question of security or safety are essentially the same in mercantile and bank credit. The banker and the wholesaler and jobber are about equally concerned with such matters as the ratio of quick assets to current liabilities, net worth, the moral hazard, etc. Both the banker and the business man who sells on credit, tap substantially the same sources of credit information. Methods of investigating the credit risk are substantially the same. In collecting credit information the trade relies heavily on the banks and the banks rely heavily on the trade.

The essential difference between bank credit and commercial credit lies in the degree of certainty of payment. The banker's percentage of profit is so small in comparison with the profit of the merchant or manufacturer who extends credit to his customers that the banker is compelled to take greater precaution concerning repayment of a loan than is the business man in regard to payment for wares sold.

The mercantile credit man considers himself fortunate if the losses of his house do not exceed 1/4 or 1/3 of 1 per cent of his total sales. The banker, whose discount is small in comparison with the profits of the merchant, regards as serious the loss of even 1/100 of

one per cent of his turnover.[1] It was estimated in 1892, by Mr. E. S. Lacey, a former Comptroller of the Currency, that the losses on loans and discounts made by national banks at that time amounted to 1/200 of one per cent.[2]

Another distinctive feature of bank credit is that a bank is commonly able to make loans in excess of the amount of cash received from shareholders and depositors. How much in excess is a question that is answered in chapter III.

The Legitimate Scope of Bank Credit Extension

It is not the most approved business of a bank to furnish the fixed capital of an enterprise. The fixed capital requirements of a business, as distinct from short time credit needs, must be met before banking accommodation can safely be extended, and borrowers should in general rely on banks for seasonal requirements only. What the banker may most legitimately furnish will be made clear by an illustration. A clothing merchant proposes to set up in business. He expects to carry a stock of goods worth on the average about $25,000. If he, without capital of his own, should make application for a bank loan of that amount, the application would in all but the most exceptional cases be refused, because the banker, who handles chiefly the funds of

[1] Norman I. Adams, *Credit Department, Analysis of the Financial Statement*, A lecture delivered before the Boston Chapter of the American Institute of Banking, February 4, 1913, p. 4.

[2] E. S. Lacey, *Some Phases of Modern Banking*, Proceedings, Second Annual Meeting, Bankers' Association of the State of Illinois, 1892, p. 50.

others, cannot advisedly place those funds where so large a risk would obtain.

The merchant might secure his capital through the partnership form of organization or, conceivably, through the issue and sale of corporate securities. In any event the bank would have to insist that the merchant commence business with a capital approximately as indicated. With those requirements met, the merchant would be in a favorable position to apply for a loan to finance his somewhat extraordinary needs in the buying seasons, the spring and fall. The capital invested would stand as a buffer between any losses that might occur in the conduct of the mercantile business and the interests of the lending bank. It is plain that if a borrower fully repays his bank loans seasonally it is presumptive evidence that the banker is not being required to furnish a part of the capital fixed in the business. Many banks insist on a "clean up" at least once a year.

The question naturally arises, why should the merchant,—and the same would apply to a manufacturer or other *entrepreneur*,—not have sufficient capital invested in the business to meet all needs, even those arising at the time of seasonal purchases or expansion? Relatively few concerns are so situated that borrowing from banks is unnecessary. The reason is that the possession of sufficient capital to enable a firm to follow that course would involve, ordinarily, an appreciable waste through loss of income on funds which, although available for use twelve months in the year, would be in active use only a fraction of that time.

It is important that emphasis be placed on the dis-

tinction between fixed capital requirements and those credit requirements of a business which recur annually or seasonally. Separate and distinct methods ought to be observed in meeting each class of requirement. Business men should first provide for the capital requisite to start business on a sound basis; then, should have banking accommodation adequate to enable them successfully to carry on that business.[1]

A maximum of profit to the borrower of funds and a minimum of risk to the lending bank,—these frequently represent conflicting considerations, and it would not be in harmony with the facts to suppose that business concerns confine their borrowing operations to strictly seasonal or temporary needs. The practice of business concerns selling notes through note brokers, described in chapter XVI, and the practice of maintaining more than one bank account militate, along with other circumstances, against the ability and disposition of bankers to limit the extension of credit to the satisfaction of seasonal needs only. It is well known that many wholesale, jobbing and manufacturing concerns now keep large amounts of paper afloat continuously. That is, banks are supplying not only their short-time or seasonal needs, but a part of their long-time capital needs as well,—a circumstance that danger attends unless the proportion of liquid assets is kept ample.[2]

[1] *Cf.* Charles Hall Davis, *The Davis Plan of Rural Banks*, Proceedings, Seventeenth Annual Convention, North Carolina Bankers' Association, 1913, pp. 29–32.

[2] Professor Harold G. Moulton has thrown a flood of light on the liquidity, or rather lack of liquidity, of American bank loans. See his articles on *Commercial Banking and Capital Formation*, Journal

It is also true that commercial banks customarily invest a part of their funds in long-time securities, especially bonds, a practice that carries with it a danger of shrinkage in value due to changes in the long-time rate of interest. Large cash holdings and other liquid assets in ample amount are designed to obviate the danger arising from advances made on *renewable paper*, even though the proceeds are invested in fixed form, but only large capital, surplus, and undivided profits will meet the situation if the prices of *bonds* held by banks shrink, as shrink they do, when long-time funds become scarce and the interest rate rises.

The disposition of borrowers to rely increasingly on *continuous* loans as against those of short and certain maturity is traceable in part to two facts or tendencies. In the first place the demand for "seasonal" loans of short-time duration, has fallen off relatively, owing to our improved facilities for distributing and storing. As it is almost always possible to obtain promptly any article needed for the consumers' trade there is no great advantage in heavy seasonal buying under ordinary conditions, and the need of seasonal borrowing is accordingly rendered less imperative.[1]

A second circumstance that has caused the demand for seasonal funds to decline relatively to that for fixed capital has been the tendency to use more and more capital in relation to labor in both production and dis-

of Political Economy, Vol. 26 (1918), particularly article III, pages 705–31.

[1] *Cf.* Asael E. Adams, *As to the Efficiency of our Present System*, Proceedings, Twenty-fourth Annual Convention, Ohio Bankers' Association, 1914, pp. 44, 45.

tribution. Every new labor saving device introduced has involved an increase in capital needed in the line in which that device is used, relative to the amount of liquid or short time funds required.[1]

In one sense continuously floating paper, when marketed by note brokers, is liquid, and in another it is not. From the standpoint of an individual bank it is ordinarily very liquid, although in times of crisis the makers might experience difficulty in meeting their obligations. From the standpoint of the banks taken as a whole this paper, put on the market by brokers wherever buyers among banks can be found, is distinctly non-liquid. From the standpoint of the borrowing concern the floating of paper continuously in the market is almost tantamount to the issue and sale of bonds. From the standpoint of the banking system the floating of such paper is also almost equivalent to the sale of bonds to the banks; but from the standpoint of the individual bank the short time paper is liquid and mobile. In an ideal bank credit situation continuously floating paper would not be outstanding and borrowers would completely pay their obligations to banks at least once a year. The business or trade that has a season longer than a year is rare, perhaps non-existent.

At the same time some lines of business, like that of the tanner, whose vats, always filled, impel him to borrow money "every day in the year," are non-seasonal and yet make heavy demands upon the loanable funds of banks. There is no good reason in such cases why banks should not lend, provided the ratio of quick assets to current liabilities is adequate, the

[1] *Ibid.*

capital or net worth of the borrower ample, and the other elements in the situation favorable.

What the commercial banker ought assiduously to avoid, even where loans are based on time deposits, is the unliquid condition of the loan item that exists when his funds are invested heavily in fixed form, in real estate, equipment, etc. Repayment then becomes a matter not of days or months, but of years, and may be extremely uncertain.

In succeeding chapters we shall consider in detail the nature of the process involved in the manufacture of bank credit, the relation of loans to other magnitudes in the balance sheet in both individual and collective banking, the recent evolution of our bank credit arrangements, the bases of bank loans, and the influence of certain institutions and practices upon the quality of the contents of the banker's portfolio. A brief study of banking operations and accounts, designed to make clear the nature of commercial banking, is given in the next chapter as an essential preliminary to the development of principles attempted in the pages that follow.

PART I

QUANTITATIVE ASPECTS OF BANK CREDIT

CHAPTER II

The Nature of Commercial Banking

The lending functions of a commercial bank are so radically different from those of the money lender, putting out only his own funds, that it will be desirable at the outset to consider carefully the nature of banking, the essence of which consists in the practice of extending loans far in excess of either the capital or cash holdings of the bank in question. A glimpse of the difference between bank loans and the loans of a money-lender will be gained if we examine the balance sheet of a bank as the institution expands on the basis of the cash paid in by the shareholders in exchange for shares of stock.

Banking Transactions and Accounts

Following the customary practice of setting down the assets and liabilities on opposite sides of the balance sheet, we note first that the payment of, say, $100,000 capital stock, one thousand shares of $100 each, will result in the creation of assets and liabilities as follows:

Assets		*Liabilities*	
Cash	$100,000	Capital Stock	$100,000

The balance sheet shows cash as an asset,—debt paying power,—and capital stock as a debt. Sometimes "capital stock" is shortened to "capital," in

which case the reader may have difficulty in bearing clearly in mind that capital really means, not the cash paid in by the shareholders, but what the bank as an institution owes the shareholders on account of their cash contributions to the enterprise. Capital stock or capital is always a liability of the bank.

It would be natural for many of the shareholders to transfer their accounts from older banks to the new, and we may suppose that cash amounting to $50,000 is deposited by shareholders. The balance sheet or financial statement will then read:

Assets		*Liabilities*	
Cash	$150,000	Capital	$100,000
		Deposits	50,000
	$150,000		$150,000

Local business men, friendly to the promoters of the new bank, also open accounts, depositing $5,000 in cash and $20,000 in checks on other banks. Our statement will now show:

Assets		*Liabilities*	
Cash	$155,000	Capital	$100,000
Due from Other Banks	20,000	Deposits	75,000
	$175,000		$175,000

During the early history of the bank, connection will have been established with one or more metropolitan banks, and a deposit balance created. The primary reasons for the maintenance of balances on de-

posit with banks in centers to which the locality of a given bank is commercially tributary are (1) that the local bank may be able to sell drafts on those centers, for the accommodation of its customers who may desire to remit drafts as means of payment, and (2) that the local bank may have agents in the centers to handle and collect drafts drawn by dealers or manufacturers who have shipped goods to distant markets, and (3) that the local bank may have collection agencies for the stream of checks deposited daily by its customers.

It would be reasonable for a bank having a capital of $100,000 to place $25,000, more or less, on deposit with one or more banks in commercial and financial centers to which the locality of the bank with which we are concerned is tributary. Cash would then be reduced $25,000 and "due from banks" would be increased to $45,000. The statement would stand:

Assets		*Liabilities*	
Cash	$130,000	Capital	$100,000
Due from Other Banks	45,000	Deposits	75,000
	$175,000		$175,000

Applications for loans amounting to $20,000 are received and approved. The average time is 90 days and the rate 6 per cent; the discount amounting to $300. The proceeds, $19,700, are left on deposit to be drawn against by check. This lending transaction introduces into the statement some new items. Loans and discounts, being valuable instruments in the possession of the bank, will take a place on the asset side

of the statement; deposits will be increased by the amount of the proceeds of the loans; the discount, which is profit undivided and belonging to the shareholders, will be recorded as a liability under the head of undivided profits. Assets and liabilities have grown to the following proportions:

Assets		*Liabilities*	
Loans and Discounts	$ 20,000	Capital	$100,000
Due from Other Banks	45,000	Undivided Profits	300
Cash	130,000	Deposits	94,700
	$195,000		$195,000

The directors of our bank feel that the amount of cash lying idle in the vault is unduly large and vote to buy $30,000 worth of bonds and, confident of the future, also vote to invest $5,000 in a well located vacant lot on which, in the fullness of time, to erect a new banking house. The purchase of the bonds and real estate for cash is now reflected in the balance sheet.

Assets		*Liabilities*	
Loans and Discounts	$ 20,000	Capital	$100,000
Due from Other Banks	45,000	Undivided Profits	300
Real Estate	5,000	Deposits	94,700
Bonds	30,000		
Cash	95,000		
	$195,000		$195,000

An overdraft, which occurs when the bank allows an unbusinesslike customer to draw upon the bank for

a sum in excess of his balance, is a form of loan, an asset, but generally bears no interest. Short and Company having a deposit balance of $200 at the bank send a check for $210 to a New York wholesaler in order to pay an overdue bill. The check is deposited by the wholesaler in a New York bank, passes through the clearing house to the New York correspondent of the local bank, and then to the local bank itself on which it is drawn. The procedure makes several changes in the balance sheet. Deposits are reduced $200, *i. e.*, Short and Company's balance is entirely wiped out; an overdraft of $10, a negative deposit, expressed in red ink on the individual ledger, is created; "due from banks" is reduced $210.

The bank has made no profit on the transaction but the balance sheet presents an entirely new item, overdrafts.

Assets		*Liabilities*	
Loans and Discounts	$ 20,000	Capital	$100,000
Overdrafts	10	Undivided Profits	300
Due from Other Banks	44,790	Deposits	94,500
Real Estate	5,000		
Bonds	30,000		
Cash	95,000		
	$194,800		$194,800

A traveling representative of a commercial paper house visits the bank, which buys, after investigation, one note of $2,500 each of four such open-market borrowers as the International Harvester Company and the Goodyear Tire and Rubber Company. The

average time of the paper bought is 4 months, the rate 6 per cent, and the discount $200. New York and Chicago drafts, drawn for a total of $9,800, are given in payment.

Without reproducing the statement of the bank, we may indicate the changes which the purchase of the paper in the open market entailed. Undivided profits are increased $200; loans and discounts by $10,000; due from other banks is reduced $9,800.

A farmer, in order to add to his acreage, borrows $5,000 from the bank, giving a mortgage on real estate as security. The time is five years and interest at 6 per cent is made payable annually but not in advance. The amount of the loan is taken by the borrower in cash and paid to the seller of the land, who deposits it in a bank in a neighboring town. Cash is reduced $5,000 by this transaction; loans and discounts, increased by $5,000.

Another customer of the bank pledges stock in a local corporation as security for a loan of $10,000 for 30 days at 5 per cent, leaving the proceeds, $9,958.33—$10,000 less the discount of $41.67,—on deposit. Loans and discounts are increased $10,000; deposits are increased $9,958.33 and undivided profits, $41.67.

Stationery and supplies are bought at a cost of $65, an expense item that we may properly deduct from undivided profits. Cash is reduced $65.

A customer deposits $500 in cash, and takes, in preference to a checking balance, a certificate of deposit bearing 4 per cent interest. Cash is increased $500 and a new item, certificates of deposit, for the same amount, appears among the liabilities.

A local patron of a Chicago mail order house, pays cash for a Chicago draft for $88.60, for the issue of which the bank charges ten cents exchange. The draft is a check of one bank upon another. The small exchange charge is a form of undivided profits. The buyer of the draft pays $88.70 in cash, which includes the small charge for the services of the bank. Cash is increased $88.70. Due from other banks is reduced by $88.60 and the amount of the exchange charge, ten cents, is added to undivided profits.

Furniture and fixtures, previously bought, are paid for by means of a cashier's check for $12,000. Furniture and fixtures will now be listed among the assets of the balance sheet as worth $12,000, and a new item, cashier's checks, for the same amount, will appear as a liability as long as the check is outstanding.

Foreseeing the possibility of making a profit by doing so, the directors authorize the issue of $25,000 in notes, and, in accordance with statute requirements, forward $25,000 in United States bonds, which were on hand, to the United States Treasury as security. As the National Bank Act also requires the maintenance of a 5 per cent redemption fund in the United States Treasury, the cash of our bank will suffer a reduction of $1,250. We may conveniently suppose that the notes are passed over the counter of the bank in exchange for customers' demand notes aggregating $25,000. As demand notes bear interest, as distinguished from discount, no *immediate* profit will arise from putting the notes into circulation.

The condition of the bank now will be reflected by the following statement:

Assets		*Liabilities*	
Loans and Discounts	$ 70,000.00	Capital	$100,000.00
Overdrafts	10.00	Undivided Profits	$541.77
Real Estate	5,000.00	Less Expenses	65.00
Furniture and Fixtures	12,000.00		476.77
U. S. Bonds	30,000.00	Circulating Notes	25,000.00
Due from Other Banks	34,901.40	Deposits	104,458 33
Redemption Fund	1,250.00	Certificates of Deposit	500.00
Cash	89,273.70	Cashier's Checks	12,000.00
	$242,435.10		$242,435.10

A glance at the statement shows that cash is equal to more than 50 per cent of the demand liabilities. A bank management eager to make a profitable record for its shareholders will be prompted to lend until demand liabilities, of which individual deposits are the main item, are from four to twenty times the cash or reserve.

Expansion of Loans a Prelude to Loss of Cash

Now as loans increase, in the case of an individual bank, cash tends to diminish. This is true partly because a few borrowers take all or part of the proceeds of their loans in cash. An attempt on the part of an individual bank to expand its loans is normally met by an immediate and positive reduction of its cash. The *immediate* contraction of cash is, however, almost negligibly small and is not the only restraining force affecting the execution of a liberal loan policy.

A second check on the loan expansion of an individ-

ual bank consists in the fact that loans result in an increase in deposits, and as deposits increase a given reserve becomes less and less adequate to sustain their growing volume. Moreover, when the proceeds of loans are left on deposit with the bank, the balances created are soon reduced—funds are borrowed to be used—through checks drawn by the borrowers in connection with the payment of current obligations. Such checks are in most cases remitted to creditors who are not depositor-customers of the drawers' bank, which stands to lose cash when the checks are presented, directly or indirectly, for payment. As the deposit structure, *i. e.*, liabilities payable in cash on demand or at short notice, rises as a result of rising loans, the cash base on which it rests becomes smaller and smaller. The liberal loan policy of an individual bank is opposed, then, in the process of its execution, by a double check: as loans are extended (a) cash tends to diminish; and (b) deposit liabilities arising from loans tend to swell,—the prelude to a further loss of cash.

A bank whose reserve is large in relation to its deposits or demand liabilities, as is true of the institution that we have been building up, will continue to expand its loans until, through a slight increase of deposits arising from loans and the decrease of cash resulting from loans, the ratio of reserve to deposit liabilities becomes what the bank management regards as normal or desirable.

If the institution whose operations we have been handling were to continue to expand its loan and other activities until it became representative of our national

banks, its balance sheet would present an appearance about as follows:

Assets		*Liabilities*	
Loans and Discounts	$540,760.28	Capital Stock.....	$100,000.00
Overdrafts.....	120.16	Surplus.....	50,000.00
U. S. Bonds.....	50,000.00	Undivided Profits...	13,271.19
Other Bonds.....	20,200.00	Circulating Notes..	12,500 00
[1] Stock of Federal Reserve Bank.....	4,500.00	Individual Deposits.	504,365.58
		U. S. Deposits.....	2,961.75
Real Estate, Furniture and Fixtures..	25,899.50	Bills Rediscounted..	5,000.00
		Due to Other Banks.	74,328.15
Other Assets.....	40,800.26	Certificates of Deposit.....	18,441.37
Redemption Fund and Due from U. S. Treasurer	1,250.20	Cashier's Checks...	468.00
Due from Other Banks.....	80,126.94		
Cash.....	17,678.70		
	$781,336.04		$781,336.04

Protective Liabilities

As our bank has grown, one new and somewhat puzzling item has made its appearance in the balance sheet, namely, surplus. Bank surplus is a liability of the bank to its shareholders which arises from and represents the excess value of assets over and above that required to meet all other liabilities, including capital stock and undivided profits. Surplus differs from capital or capital stock in not being represented by stock certificates, although the magnitude of the

[1] Federal Reserve banks are banker's banks owned by national banks, state banks, and trust companies.

surplus tends to be reflected in the market value of the relative stock certificates. Surplus also differs from capital in that it is commonly earned, whereas capital is commonly paid in by the shareholders. Bank surplus differs from the surplus of most business corporations in that it is sometimes, not infrequently, "paid in," wholly or in part.

Perhaps the most important difference between capital and surplus is a legal one. Double liability attaches to the ownership of stock in all our national banks (except the National Bank of Commerce of New York) and in many state banks, but in no case does it apply to surplus.

Reduced to simple terms, "double liability" means that a shareholder's maximum loss in connection with the holding of stock can not legally be made to exceed the amount of his investment (or the investment and an amount sufficient to make his shares fully paid, if the stock has not been fully paid) plus an amount equal to the par value of his stock. In general, a bank shareholder may be called upon, in the event of heavy loss or disaster to his bank, for a contribution in addition to the purchase price of his stock, proportionate to his shares held, but not in excess of their par value. Such an arrangement, while affording a reasonable degree of security to depositors and other creditors, does not render the ownership of bank stock objectionable to men of great means and substance as did at one time the provisions of English banking law.

Serious bank failures in the United Kingdom in the eighteen hundred and seventies spread circles of ruin among bank shareholders, who were liable on their

bank stocks to the full extent of their fortunes. Men shunned the latency of limitless debt, which "appalls the imagination and breaks the heart of effort," and the ownership of banks in the United Kingdom was rapidly passing from those who had much to lose to those who had little when the Act of 1879 was passed to prevent "the defection of the strong and the infusion of the weak." [1] The act, which legalized the principle of reserve liability, was accepted before 1885 by all but seven of the eighty-two unlimited banks in the three Kingdoms. The act enabled every bank registered under its provisions to increase the nominal value of each of its shares, and thus to enlarge its subscribed capital without increasing the amount paid up. It was further provided by the act that every bank that should register under it might place the whole or any portion of its uncalled capital in the form of reserve liability. Thus the liability of the shareholders of the London Joint Stock Bank, prior to its recent amalgamation with the London City and Midland Bank, was £85 per share in addition to £15 paid thereon.[2]

While the English system of reserve liability serves the same protective purpose as the double liability feature of our national bank stock, it is flexible and adaptable to the varying desires and views of share-

[1] George Rae, *The Country Banker*, John Murray, London, 1885, p. 253.

[2] *Interviews on the Banking and Currency Systems of England, Scotland, France, Germany, Switzerland, and Italy*, Publications of the National Monetary Commission, Senate Document No. 492, 61st Congress, 2nd Session, p. 60.

holders and managements having widely different temperaments and policies. The English bank management is able to regulate the security underlying the ultimate payment of deposits and other creditor liabilities through the reserve liability as well as through the payment of capital and the accumulation of surplus, which the English call reserve.

Surplus and undivided profits are of essentially the same nature. Each indicates that an excess value of resources exists on the assets side of the balance sheet. Surplus almost invariably stands as a round sum, and although sometimes owing its origin, like capital, to cash paid in by the shareholders, very frequently represents the accumulat*ed* earnings of the bank. The undivided profits item represents the accumulat*ing* earnings of the bank and is scarcely ever a clean, round sum. Undivided profits feed surplus. At intervals, the bookkeeper of a prosperous bank acting at the behest of the bank management will transfer a portion of undivided profits, $5,000, $10,000, or more, to surplus. Dividends, the expenses of the bank, and most losses come out of undivided profits, whereas surplus, like capital, stands as a buffer between the creditors of the bank and exceptionally heavy losses.

It needs to be emphasized that surplus, like capital stock and undivided profits, is not something tangible that the bank examiner can place his hands on. Like all items on the liabilities side, surplus is a statement of debt. The assets available to cancel the debt represented by surplus, undivided profits, and all the remaining liabilities are listed in the opposite column of

the balance sheet. It is an egregious mistake to think of the surplus or capital stock or undivided profits as being normally invested in any one asset item or in any particular group of asset items. That such is not the case will be clear from an extreme, but legitimate, illustration. A bank has a surplus of $50,000 and cash of $40,000. If, as the result of a "run" on the bank, its cash were entirely withdrawn, deposits would be reduced $40,000 and cash reduced $40,000, with no change in the amount of the surplus. Any other item on the assets side of the financial statement might be eliminated in a similar way with similar results, in that surplus would be left undisturbed. Demonstrably, surplus does not stand for any one asset item, or even group of items, in the balance sheet. The shareholders have an equity in *each* of the resource items.

Writers on banking are probably responsible in no small measure for the general lack of clarity of understanding in connection with the nature and functions of surplus. Text books commonly in use either omit definition and explanation of surplus or fail to give a clear and satisfying exposition of this mystifying magnitude.

Scott says with reference to capital and surplus:

> By the former is meant a fund contributed directly or guaranteed by the stockholders or proprietors, and by the latter an additional fund accumulated from profits. . . . In case of failure, such funds are available for the payment of depositors and noteholders and other creditors, who are to this extent guaranteed against loss. Surplus funds may also be accumulated as a means of meeting temporary losses with-

out infringing upon the other resources of the bank, and for the equalization of dividends.[1]

Capital and surplus are represented as funds. The practice of so representing surplus and capital may have been prompted by the following provision (section 5199) of the National Bank Act:

The directors of any association may, semi-annually, declare a dividend of so much of the net profits of the association as they shall judge expedient but each association shall, before the declaration of a dividend, carry one-tenth part of its net profits of the preceding half year to its surplus fund until the same shall amount to twenty per centum of its capital stock.

White refers to both capital and surplus in terms of a guarantee fund.

The capital of a bank is primarily a guarantee fund contributed by the shareholders to give it stability and to create confidence in its soundness. . . . The surplus is a portion of the bank's profits not divided among the shareholders but set aside as a permanent addition to the guarantee fund. . . . For all banking purposes the surplus becomes an integral part of the capital.[2]

Writers fresh from an examination of the surplus provisions of the National Bank Act have naturally employed its unfortunate terminology. The result

[1] William A. Scott, *Money and Banking*, Henry Holt & Company, New York, 1916, p. 132.

[2] Horace White, *Money and Banking*, Fourth Edition, Ginn and Company, Boston, p. 214.

has been confusion between surplus and cash or reserve which, in a strict sense, is a fund. Our frequent use of the term surplus reserve, *i. e.*, the reserve held in excess of legal requirements, is not intended to sharpen the distinction current between surplus and reserve. Surplus is excess asset-value due shareholders. It is dollars' worth, not dollars.

The balance sheet or financial statement last given should convey the fact that the bank represented would be able, in the event of liquidation, to meet in full all of its obligations to outside creditors and have sufficient funds remaining to pay shareholders $163.27, that is, $100,000(capital)+$50,000(surplus)+$13,271.19 (undivided profits) divided by 1000 (shares of stock), on each of the one thousand shares outstanding.

The question naturally suggests itself, might not the loans and discounts or other assets prove to be worth more or less than 100 cents on the dollar? The question involves the subject of valuation. Although the value of the principal assets of a bank is free from fluctuation traceable to physical change, there is, nevertheless, occasion for re-valuation, for the scaling down or writing up of assets from time to time. While loans and discounts, which correspond roughly to a merchant's stock of goods, are not subject to physical deterioration, they do frequently include paper on which the face value cannot be realized. The value of bonds and other securities fluctuates constantly, and calls for more or less frequent value adjustment. Furniture and fixtures also require re-valuation from time to time. Real estate is somewhat unsteady in value. The valuation placed on all these items will

depend appreciably on the temperament and disposition of the bank management. Where conservatism in valuation prevails,—as is probably true generally in banking, in contradistinction, perhaps, to ordinary business circles,—assets are likely to be undervalued, and the actual surplus larger than the book surplus. In such cases, assets are "concealed."

Concealed Assets and Liabilities

Concealment of an asset commonly represents concealment of profits and, whether partial or complete, may be accomplished in several ways. Securities that had not been listed among the assets and amounting to two and a quarter million dollars were uncovered by bank examiners at work on the affairs of a New York City bank. The officers of the bank were made to show the two and a quarter million dollars in their assets, "but in spite of that, shortly afterwards they increased their capital from one million to three millions without the stockholders paying in a cent or reducing their surplus or undivided profits. So they must have had a bunch somewhere that we did not know about." Under the old National Bank Act real estate could not be acquired and held beyond a certain time. A certain bank acquired a piece of real estate and not wanting "to be punched up by an examiner every day" the management "charged the entire thing off and let it go at that." When the real estate was sold later the money was thrown back into the profits of the bank. It has happened that a proportion of hidden assets has been credited to each of the different shareholders of a bank as a deposit, under an agree-

ment that the shareholders might not draw out the amount and that they should receive no interest thereon.[1] Also, dividends have not been declared, by agreement among the stockholders, profits being concealed by issuing a certificate of deposit to some person as trustee for the stockholders.

The purpose of concealing assets may be to evade taxation, especially when capital items are assessed at a higher rate than real estate and other property. Again, concealing assets may discourage competition. Large profits shown might induce competition. When profits and assets are concealed from some of the stockholders, but not from others, the practice may be resorted to in order that officers or directors may be able to buy the stock of the ill informed shareholders at less than its value.[2]

Liabilities are also frequently concealed,—a practice that is even more seriously objectionable than that of concealing assets. Liabilities are generally concealed by dishonest and designing officers or employees in order to offset a shortage in the cash.

It is assumed in our discussion of surplus and its rôle in commercial banking that book surplus accurately reflects actual surplus. However, it must be borne in mind that whether that reflection or measurement is accurate or not depends upon the valuation of the multifarious items that are embraced in the aggregates with which the balance sheet deals.

If we assume that the valuation of the assets in the

[1] *Proceedings*, Ninth Annual Convention, National Association of Supervisors of State Banks, 1910, pp. 57–59.

[2] *Op. cit.*, pp. 56, 57.

financial statement on page 22 is correct, it will be evident that the bank represented could sustain a loss of $163,271.19 and still pay its creditors in full, without levying an assessment on the shareholders in connection with the liability for the amount of the face value of their stock. If the bank had not built up a surplus and, instead of so doing, had paid dividends sufficiently liberal to absorb the earnings, any loss in excess of $113,271.19 (or of $213,271.19, if we include the possible levy upon stockholders provided for by the double liability feature of the National Bank Act) would cut into the amount available for meeting obligations to the creditors of the bank. The larger the capital, surplus or undivided profits, other things being equal, the less is the likelihood of loss to the creditors of the bank. Or stating the same fact in other words, the larger the surplus or other liabilities to the shareholders, the greater is the loss that a bank can sustain and still pay its deposits and other creditor liabilities in full.

CHAPTER III

The Philosophy of Bank Credit

The prime purpose of the present chapter will be to draw a sharp line of distinction between credit extension by an individual bank and that of banks taken in the aggregate. The accepted statements of banking theory, with scarcely an exception,[1] have made no such distinction, with the result that confusion, obscurity, and error prevail with reference to the most fundamental principles of the subject. The explanation of the way in which banking institutions manufacture credit, *i. e.*, make loans equal to several times the amount of their cash holdings, has been essayed again and again, but the traditional treatment appears to be marked by lack of insight into the heart of the problem, and the subject seems still to stand in need of exposition.

The influence of bankers' banks on the manufacture of bank credit being taken up in chapter VI, it is in place to say that throughout this chapter cash is used in a broad sense synonymously with reserve, and no distinction is made between checks, drafts, etc., that are convertible into cash upon presentation and cash itself. It makes no substantial difference to the banker

[1] Professor H. J. Davenport gives a fragmentary view of the theory here developed. See his *Economics of Enterprise*, The Macmillan Company, New York, 1913, pp. 263, 286, 287.

whether additions to his volume of deposits have their origin in the receipt of lawful money or in the form of various credit instruments, bank notes, checks, drafts, that are readily exchangeable for or convertible into lawful money.

It has long been observed that the banks of a given credit area, *e. g.*, United States, are able to extend credit, *i. e.*, make loans, equal to several times their reserve and the inference has been made that what is true of all banks taken in the aggregate is true of each; and the inference has been supported by the observed fact that the balance sheet of any representative individual bank carries loans several times the amount of the reserve held. Observing that an individual bank, as well as banks taken collectively, commonly has loans equal to several times the reserve, the theorist has reasoned that a given *addition* to the reserves of an individual bank would place the receiving institution in a position to make a *manifold increase* in its *own* loans. If a bank holding cash of $100,000 has loans outstanding equal to $1,000,000, the receipt of another $100,000 in cash, the old theory runs, would enable the bank to add another $1,000,000 to its loan item.[1] Such reasoning, however, leaves out of account certain consequences of loan expansion to which attention will be directed later in this chapter, and we may now state, as a thesis to be defended, that the acquisition of ad-

[1] See E. E. Agger, *Organized Banking*, Henry Holt & Company, New York, 1918, pp. 31–33; H. G. Moulton, *Surplus in Commercial Banking*, Journal of Political Economy, Vol. XXV, December, 1917, pp. 1007–1009; W. H. Kniffin, *The Practical Work of a Bank*, Bankers' Publishing Company, New York, 1915, pp. 14–16.

ditional primary deposits enables an individual bank to expand its loan item by little more than the amount of such deposits.[1] But how can a given amount of cash become the basis of manifold loans and deposits in a banking system if the acquisition of that amount by an individual bank has little or no multiplicative importance? That is the riddle of banking and to its solution this chapter is chiefly devoted. A statement and critical exposition of the time-honored theory, handed down consistently from the days of Alexander Hamilton to the present, will serve as an advantageous point of departure.

A Critical Analysis of the Traditional Theory

Horace White, who follows Macleod, has employed substantially the same explanation in the various editions of his *Money and Banking*, widely used as a text in our colleges and universities. The following passages from that work are typical of the traditional treatment.

> An analysis of modern banking is substantially this: A man has $10,000 of his own money. He starts a bank. His neighbors deposit $50,000 with him. . . . The banker finds by experience that some of his customers will bring in as much money as others draw out, so that $60,000 is on hand all the time. He infers that if his own $10,000, in connection

[1] A primary deposit is one growing out of the lodgment of cash or its equivalent, and not out of credit extended by the bank in question. A fuller statement of the nature of primary deposits as distinguished from derivative deposits, which have their origin in loans extended to depositors, is given in later pages of this chapter.

with his good reputation, is considered by the public a guarantee for $50,000, then the whole $60,000 will serve as a guarantee for a much larger sum. When he begins, his balance sheet reads in this way:

Resources		*Liabilities*	
Cash	$60,000	Capital	$10,000
		Deposits	50,000
	$60,000		$60,000

The banker now begins to buy promissory notes, or bills of exchange, due at a specified time in the future, paying the face value of the same, minus interest at a certain rate for the intervening time. This is called discounting commercial paper. When he discounts for one of his customers a note for $1,000 running ninety days, he deducts the interest (say $15), entering the amount under the head of profits due to stockholders, and writes the remainder, $985, on the credit side of the customer's pass book, entering a corresponding sum as a credit to that person's account in his own books. This credit is called a deposit, and properly so, since the net purport of the transaction is that the banker has bought an interest-bearing security and the seller has deposited the money he received for it in the bank, to be drawn out at his pleasure. If the customer had deposited $1,000 gold simultaneously with the foregoing transaction, his total deposits would have been $1,985. Yet there is a difference between the two kinds of deposits, the one being of money and the other a bank credit. In practice, the bank credits at any given time may be four or five times as large as the amount of cash in the bank.

The process of discounting commercial paper continues until the banker has $200,000 of bills receivable in his portfolio. Then his account stands thus:

Resources		*Liabilities*	
Cash	$ 60,000	Deposits	$247,000
Loans and Discounts	200,000	Capital	10,000
		Profit	3,000
	$260,000		$260,000

Thus the business venture called a "bank" owes to depositors and to the banker himself $260,000; and it has assets which will produce that amount, but only $60,000 of it is cash. It follows that the banker has manufactured something which serves as a medium of exchange to the extent of $197,000. This is credit. Goods can usually be bought and sold with it as readily as with money, since checks drawn against deposits are accepted in trade by the whole community. The whole $200,000 of bills are not discounted at one time, but gradually, so that some are always maturing and bringing in money to meet the banker's liabilities.[1]

Two questions arise at once concerning the explanation given. The first is, would not unfavorable clearing house balances preclude the possibility of the bank considered lending $200,000 on the basis of $60,000 in money? The second question is, would the *gradual* extension of loans of the bank enable the institution, without receiving additional primary cash deposits,—additional primary deposits, according to the traditional theory, would also serve to support manifold loans—to lend $200,000 on the basis of an undiminished reserve of $60,000?

The second question, relating to the content of the

[1] Horace White, *Money and Banking*, Fifth Edition, Ginn & Company, Boston, 1914, pp. 194–196.

last sentence quoted above, may be disposed of at once. The error there involved is that small loans made today, January 1, will when they mature, April 1, bring in money with which to meet the banker's liabilities arising from heavier loans made April 1. If the funds received from the *repayment* of the early loans are sufficient to meet the banker's liabilities arising from the heavier loans made April 1, the funds first loaned would be sufficient to do the same.[1] In other words, if loans amounting to $200,000 could be extended gradually on the basis of $60,000 cash, the same amount could be loaned at once. But the result of a loan expansion of the bank would be a loss of cash through unfavorable clearing house balances as the sequel will show.

Let us suppose that the Hanover National Bank of New York acquires a deposit of $1,000,000 in gold imported and lends $10,000,000 to its customers, an amount suggested by the approximate ratio of 1 to 10 between reserves and deposits in our banking system at the present time. (The ratio of cash to deposits, one to four, in the statement quoted from White, which was taken almost verbatim from Macleod's work of a half century ago,[2] is supposed to represent the ratio customary at that time.) The borrowing customers of the Hanover National Bank would withdraw little or

[1] It is true that a small proportion of loans is customarily held on deposit by the borrower with the lending banker and that, as a result, the lending bank is able commonly to extend credit *about equal* in amount to "cash" deposits received.

[2] Henry Dunning Macleod, *Theory and Practice of Banking* (Fifth Edition), Vol. I, p. 324.

no cash over the counter but would certainly draw checks against the proceeds of their loans deposited with the bank. The checks would be sent to their creditors in New York and elsewhere. Checks for a relatively small amount would be deposited for credit at the Hanover National Bank, effecting the withdrawal of no cash; but the great bulk of the checks drawn by the borrowers of the $10,000,000 against the proceeds of their loans would reach the Hanover National Bank *via* the New York clearing house, many having traveled long distances from the points of deposit. Perhaps not more than $100,000 out of all the checks drawn against the $10,000,000 borrowed would be deposited at the Hanover National Bank. The remainder of the manifold loans supposedly extended on the basis of the imported gold deposited, except a small proportion, probably not more than 20 per cent, not checked by borrowers, would represent cash that the bank would lose through unfavorable clearing house balances, an amount that would be scattered widely among the banks of the system. It is clear that an individual bank attempting to lend greatly in excess of the amount of an addition to its reserves would do so at its peril.

Loan and Deposit Expansion within the Banking System

It would be equally clear, however, if there were only *one* bank into which all of our banks were merged, doing the loan and deposit business of the entire country and maintaining a reserve-deposit ratio of R, that the net deposit of a given amount of cash or re-

serve, c, would enable the institution to lend, in addition to its normal amount of loans outstanding,

$$\frac{1}{R}(c - Rc) \text{ or } \frac{c}{R} - c$$

This is true because the deposit arising from the cash, c, would itself call for a reserve equal to Rc, leaving c–Rc as reserve for deposits arising from additional loans. The amalgamated bank, *i. e.*, the banking system, would tend to lose no cash as a result of its loan expansion, because all checks drawn by borrowers would be in favor of depositors of the drawers' bank, who would themselves place the checks on deposit.[1] The total deposits expansion for the banking system, under the conditions stated, would be $\frac{1}{R}c$ or $\frac{c}{R}$. If the expansion of deposits were either more or less than $\frac{c}{R}$, there would be involved, obviously, a departure from the cash-deposits ratio previously existent in the banking system.

Let the ratio of cash to deposits for the banking system, then, be represented by R, the new cash or reserve, by c, the expansion of deposits traceable to an addition to cash, by D, the loan expansion arising from the same source, by X, and the following equations stand forth:

$$X = \frac{c(1-R)}{R} \text{ and } D = \frac{c}{R}$$

[1] Some cash might be lost as a result of rising prices and a consequent increased demand for *hand to hand* money.

We have seen that the loan expansion in an isolated bank or *in the banking system*, as the result of the acquisition of a given amount of reserve, is several times greater than the loan expansion practicable for an individual bank acquiring the same amount. What is true for the banking system as an aggregate is *not* true for an individual bank that constitutes only one of many units in that aggregate. The sudden acquisition of a substantial amount of reserve by a representative individual bank, other things remaining the same, tends to cause that bank to become out of tune with the banks in the system as a whole. As the individual bank increases its loans in order to re-establish its normal reserve-deposits ratio, reserve is lost to other banks and the new reserve, split into small fragments, becomes dispersed among the banks of the system. Through the process of dispersion it comes to constitute the basis of a manifold loan expansion.

Primary and Derivative Deposits Differentiated

An explanation of the way in which new cash or reserve becomes the basis of a manifold and wide extension of loans by the banks of a system may be approached by distinguishing carefully between what, for lack of better terms, may be called primary and derivative deposits. A primary deposit may be defined as one that arises from the actual lodgment in a bank of cash or its readily convertible equivalent such as checks and drafts drawn on other banks, but not made in anticipation of the repayment of a loan. By a derivative deposit is meant one which arises directly from a loan or which is accumulated by a borrower in antici-

pation of the repayment of a loan. Whether springing from loan-proceeds left with the bank—which will later be largely, if not entirely, drawn out by check to serve the purpose for which the loan was made—or arising from the placement of funds in the bank in order to retire a loan at maturity, a derivative deposit is extremely variable in magnitude. A primary deposit, standing as it does for funds placed in the bank for safekeeping and to be currently checked against as well as currently replenished, is not marked by the extreme ups and downs to which a derivative deposit balance is subject. A primary deposit, it is true, may be large today and small tomorrow, but there is a strong tendency toward regularity and uniformity of volume. The primary deposit balance of a representative business concern moves generally within pretty definite limits, the lower limit never reaching zero. A derivative deposit, on the other hand, is superimposed upon the primary balance and, at the initial date of the relative loan, rises at once to a high point, falls away during the early period of the loan, then as the loan-maturity approaches rises more or less gradually to a peak and, when the loan is paid, drops precipitately to the initial and basic level. A primary deposit balance is roughly analogous to a flowing stream in the dry season of the year. A derivative deposit is, perhaps even more roughly, analogous to the added and quickly changing volume that comes with the rains of spring and fall. A primary deposit tends, then, to be relatively stable in amount, while a derivative deposit, always "made" only to be "withdrawn," is subject, during its comparatively short and limited existence, to sharp and pro-

nounced changes in magnitude. The nature of primary deposits is easily understood. Derivative deposits, invariably tied closely to loans, require further explanation.

A typical bank borrower does not at once check out the entire amount borrowed and, furthermore, for a short time just preceding the maturity of the loan he does not fail to accumulate a balance sufficiently large to enable him to retire the loan at maturity by means of check. Indeed borrowers are required by many city banks to maintain an average balance equal to a definite percentage, usually 20 per cent, of the maximum credit extended,—a circumstance that tends to prevent the withdrawal of the entire amount borrowed. On the contrary, many country bankers affirm that loans made to a depositor have nothing to do with his balance. But even these country bankers admit that the typical borrower's balance is swollen for a few days after the negotiation of the loan, before checks, promptly drawn by the borrower, return to his bank, reducing his balance. They also testify that the borrower commonly increases his balance during the late days of the loan period, which may be lengthened by renewal, in order to be able to repay his loan by check at maturity. If we let diagram 1 represent a longitudinal section of the deposit account of a typical bank borrower, we shall be able to see the relation between an individual bank-loan and the corresponding derivative deposit balance.

Time is measured and registered along the O P or horizontal axis, *i. e.*, by distance from O toward the right. The amount of the total deposit balance of a

typical depositor-borrower is measured by the vertical distance above the O P axis.

Thus, before borrowing, the bank customer, whose account is pictured in the diagram, had a balance of O M. Just after leaving on deposit the proceeds of a loan, he had a balance of O M plus M′ K of which M′ K was "derivative." Funds are borrowed for use,

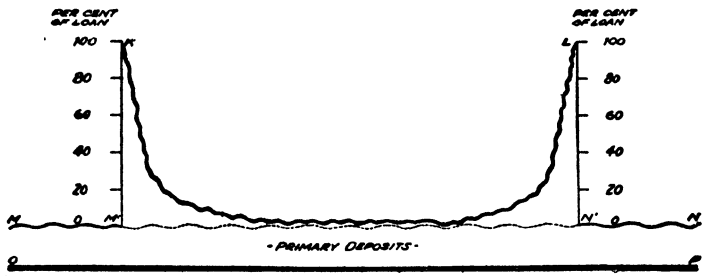


Diagram 1

and we see that fact reflected in the downward course of the curve K L during the first days of the loan period.

A short time before the maturity of the loan, preparation is made by the borrower looking toward repayment, and as time passes the vertical distance between the M N line and the K L line becomes greater. Derivative deposits rise in anticipation of the maturity of the loan, reaching a maximum on that day. When the loan is retired, the deposit balance drops to the level obtaining before the loan was secured.

The reader, and especially the practical banker, who objects to the "ideal" character of the operations

represented by diagram 1, as invalidating the theory developed, is urged to peruse the exercises and problems bearing upon this chapter given in Appendix A.

The Ratio of Derivative Deposits to Loans

The average magnitude of the derivative deposit balance, represented by the average height of the curve K L above the line M′N′ in diagram 1, in relation to the amount of the loan, K M′, varies decidedly from borrower to borrower and—less markedly—from bank to bank. The most extreme case of variation that the writer has found among borrowers is furnished by a bank at Sioux Falls, South Dakota. The cashier's own words are interesting. "Quite a percentage of our business is done with farmers who at most seasons of the year maintain only small accounts even though their borrowed balance is a good sized one. Then too at the other extreme we have had a few customers who borrowed good sized amounts and left a larger amount than the total amount borrowed on deposit all the time as an emergency fund in case of a sudden need. These are, in our case, men who deal in real estate, owners, not brokers, so that if they are at a distance and find what they consider a snap they shall be able to draw their check without stopping to negotiate for a loan."

The subjoined table, containing estimates obtained from the banks represented, throws light on the variation of the ratio from bank to bank and shows within what limits the average or typical ratio for American banks would fall.

Location of Bank	*Ratio of Derivative Deposits to Loans*
Boston, Mass.	10 per cent
Salem, Mass.	20 " "
Rockport, Mass.	7.5 " "
Claremont, N. H.	10 " "
Manchester, N. H.	10 " "
Milford, N. H.	10 " "
Newport, N. H.[1]	3 " "
New York, N. Y.	20 " "
Erie, Pa.[2]	8 " "
Baltimore, Md.	10 " "
Tiffin, Ohio	10 " "
Medina, Ohio	20 " "
Elkhart, Ind.	8.75 " "
Assumption, Ill.	12.5 " "
Carthage, Ill.	20 " "
Freeport, Ill.	5 " "
Galesburg, Ill.	20 " "
Frankfort, Ky	10 " "
Scottsville, Ky.[3]	10 " "
Greenville, S. C.[4]	18.5 " "

[1] Detailed estimate is as follows:

10 per cent of loans result in an average balance of 15 per cent
30 per cent of loans result in an average balance of 5 per cent
60 per cent of loans result in an average balance of 0 per cent

[2] Sixty per cent of loans are "out during the life of the obligation; and 40 per cent perhaps leave 20 per cent of the amount borrowed with us during the loan period."

[3] Detailed estimate:

10 per cent of loans result in an average balance of 40 per cent
30 per cent of loans result in an average balance of 20 per cent
60 per cent of loans result in an average balance of 0 per cent

[4] 10 per cent of loans result in an average balance of 40 per cent
20 per cent of loans result in an average balance of 30 per cent
20 per cent of loans result in an average balance of 20 per cent
40 per cent of loans result in an average balance of 10 per cent
10 per cent of loans result in an average balance of 5 per cent

Location of Bank	*Ratio of Derivative Deposits to Loans*
Morgan City, La.	10 per cent
Corpus Christi, Tex.	15 " "
Oskaloosa, Ia.	2 " "
Pierre, S. D.	5 " "
Denver, Colo.	10 " "
San Francisco, Cal.[1]	10 " "

It seems safe to conclude that for our banks taken in the aggregate the derivative deposit-loan ratio lies somewhere between 5 and 20 per cent.

Factors Determining the Ratio of Derivative Deposits to Loans

The proportion of loans left on deposit is a function of many variables. In a community of farmers and stock men, relatively small derivative deposits would be maintained in relation to bank borrowings. "In a strictly farming community," says an Illinois banker, "loans are usually made for a definite purpose, such as buying stock or something of that nature and then paid off when grain or stock is sold in the bulk." It is evident that, under these conditions, deposits traceable to loans during the life of the obligations would be small.

When a high rate of interest is charged, especially to farmers and stock men as is common in the West, the proportion of derivative deposits to loans may

[1] Estimate of writer, based on information furnished by three banks of San Francisco,—where banking competition is very keen and requirements as to balances in relation to loans comparatively lax.

be whittled down still further. The higher the interest rate charged by the bank, the stronger will be the tendency for the borrower to make the inception of his loans synchronize with the initial date of the period for which he needs funds, and the maturity of the loans synchronize with sales or other cash receipts. A South Dakota banker estimates that a typical loan made by his bank is practically exhausted the day that it is borrowed and that very little deposit is made until the date that the note is paid. "The reason for this is as follows: Our rate of interest is high, 10 per cent, and when a customer makes a loan he does not do so until he has immediate use for the money and then only borrows what he really needs. Our loans," he continues, "are mostly made to stock men and are made payable at any time before maturity, so that usually the loan is *entirely* taken up from the proceeds of stock sales on the day the sale is made, or that the returns are received." High interest charges and meagre derivative deposits go hand in hand.

Conversely, where interest rates are comparatively low, the desire of business men to maintain balances satisfactory to their bankers asserts itself and money may be borrowed in excess of actual or estimated needs. The good business man, it is well known, is jealous of his balance in his own bank. On general principles, he does not wish to see his balance run too low and he frequently asks for a loan, according to a Pennsylvania banker, with the remark that "I may need it."

But even in communities where interest rates are low and business men are jealous of their bank balances

a considerable proportion of loans may be productive of no large volume of derivative deposits. When a large proportion of a bank's advances take the form of paper bought from paper dealers—notes of distant borrowers—the ratio of derivative deposits to combined advances made to depositors and non-depositors may be decidedly low. Essentially the same result is obtained when advances are made on mortgage security. The Indiana bank included in the table above reports that about 65 per cent of its loans are made on commercial paper and mortgages; and that on such loans practically no deposits are left with the bank. The remaining 35 per cent of loans are made to local commercial borrowers, who are also depositors, and about 25 per cent of the amount loaned to these depositors remain, on an average, with the bank for the duration of the loans. With the six banks of Freeport, Illinois, there is no large local demand for borrowed money, and one carries over a half million dollars in loans secured largely by mortgages on farms in states farther north and west. A bank at Pecatonica, Illinois, with bonds and receivables totaling $410,000, loaned locally only $81,000. Banks of this character have a small volume of derivative deposits; the ratio of derivative deposits to loans is low.

Collateral loans represent another class of advances from which small derivative deposits result. Funds derived from time or demand loans secured by marketable collateral tend to be drawn out immediately, as they are frequently needed for a specific purpose. At the maturity of such loans the collateral is usually sold by the holder, and the debt to the bank discharged;

or, funds may become available from some other source definitely in the borrower's mind from the beginning of the loan, and the collateral may be freed by the application of such funds. Whenever a banker makes most of his advances on collateral, he may almost certainly count upon only a small percentage being left on deposit. Collateral loans as an element in the banker's advances tend to depress the ratio of derivative deposits to loans.

Whether loans are secured or unsecured, the time element will have its influence on the ratio under examination. Other things being equal, a short maturity favors a high ratio, and a long or deferred maturity a low ratio. The shorter the loan period the larger will the high balances of the early and closing days of a loan bulk in relation to the loan itself. Renewals are, accordingly, inimical to a high derivative balance in relation to loans and tend, therefore, to be less profitable to the banker than advances that are not renewed.

The size of the loan, or rather the size of the borrower, may also be a factor bearing upon the derivative deposit-loan ratio. A banker on the Pacific Coast points out that "among those who borrow, say $5,000, or less, the average balance would run close to forty per cent of the outstanding loan, over the larger period of the advance. As loans run into larger figures, the proportion of balance seems to reduce to around ten per cent." The argument of the large borrowers is that "they would prefer to sell their paper to commercial paper brokers and pay the additional commission than to lose the earning capacity of the money tied

up in compensating balances with their bank." The small business man, whose scale of borrowing operations is not large enough to arouse the interest of the commercial paper broker is apparently subject to a restraining influence in the withdrawal of borrowed funds that does not stay the hand of the big borrower whose access to the loan market through paper brokers is easy and economical.

Still one more determinant of the ratio under consideration is the firmness with which bankers are able to fix and enforce requirements as to the customer's balance in relation to accommodation extended. A bank having strict requirements as to minimum balances in relation to loans would tend to have relatively high derivative deposits, and *vice versa*. Requirements as to balances in relation to loans are in turn governed to an appreciable extent by such forces—conflicting, it may be—as banking competition, the rate of interest charged borrowers, custom, etc. A San Francisco banker agreeing upon a credit of $100,000 would ordinarily stipulate that the balances should run 15 per cent of the amount advanced, whereas a New York institution would commonly require 20 per cent. In each case, of course, the balances maintained when the account was not borrowing would be a consideration in determining the maximum credit.

Inasmuch as banks become comparatively strict with reference to balances maintained in relation to loans during periods of prosperity and expansion, when borrowers tend to strain their credit, the ratio of derivative deposits to loans may then rise decidedly higher than during less prosperous times. The heavy and

insistent demands of borrowers for funds during a period of expansion, rising prices, and swollen profits, place the lending banker in an advantageous position to exact the maintenance of high balances in relation to loans. "You are straining your credit," says the banker to the credit-seeking customer, "and, with tight money staring us in the face, I shall have to ask you to keep a more liberal balance in relation to loans than previously, as a requisite to additional accommodation." A relatively high ratio of derivative deposits to loans is a part of the price that the borrower may have to pay for the use of funds during periods of expansion. We may, therefore, bring forward business conditions and the state of trade,—the business cycle,—as among the numerous factors determining the ratio of derivative deposits to loans.

In short, where loans are made mainly to merchants and manufacturers as distinct from farmers and live-stock men, where the rate of interest charged to borrowers is low, where borrowers court the esteem and goodwill of their bankers against the time of financial need, where loans on collateral and mortgage security are of slender proportions, where lines of credit do not run into large figures, where maturities are short and paper seldom renewed, where the peddler of commercial paper is rarely seen, where requirements as to balances are strict and well enforced even in dull times,—there the ratio of derivative deposits to loans will be high, if not indeed at a maximum. Reverse the conditions and you reverse the result. Under typical conditions in the United States, the ratio, as we have seen, does not exceed 20 per cent.

Aggregate Derivative Deposits Tend to Remain Constant in Amount

After a bank has struck its pace, so to speak, and its loans have begun to mature, aggregate derivative deposits tend to remain constant in amount. This is shown in diagram 2, which is a series of derivative deposits curves each similar to that contained in diagram 1. Here, as in diagram 1, time is measured along the horizontal axis and derivative deposits by the perpendicular distance above the line M N. Vertical axes erected at any two points between a and b would cut the derivative deposits curves in such a way that the *sum* of the vertical distances of the points of intersection above the M N line would be approximately equal in the two cases. Another and perhaps clearer way of saying the same thing is that if any given perpendicular axis, or vertical line, is moved from left to right or right to left between a and b along the time line M N, the vertical line will cut, at whatever point it may be, about the same number of derivative deposits curves—some going up, others going down—and at points approximately the same distance above the M N line. The perpendicular erected at c, a point of time, touches first a derivative deposits curve at a point so low as to indicate a derivative deposit balance of only about 3 per cent of the relative loan. The next two points of intersection, as we follow the perpendicular upward, indicate a balance of approximately 5 per cent of the corresponding loan in each case; then one of 8 per cent, one of 10 per cent and one of 14 per cent; then 20 per cent, 25 per cent, 30 per cent, and 80

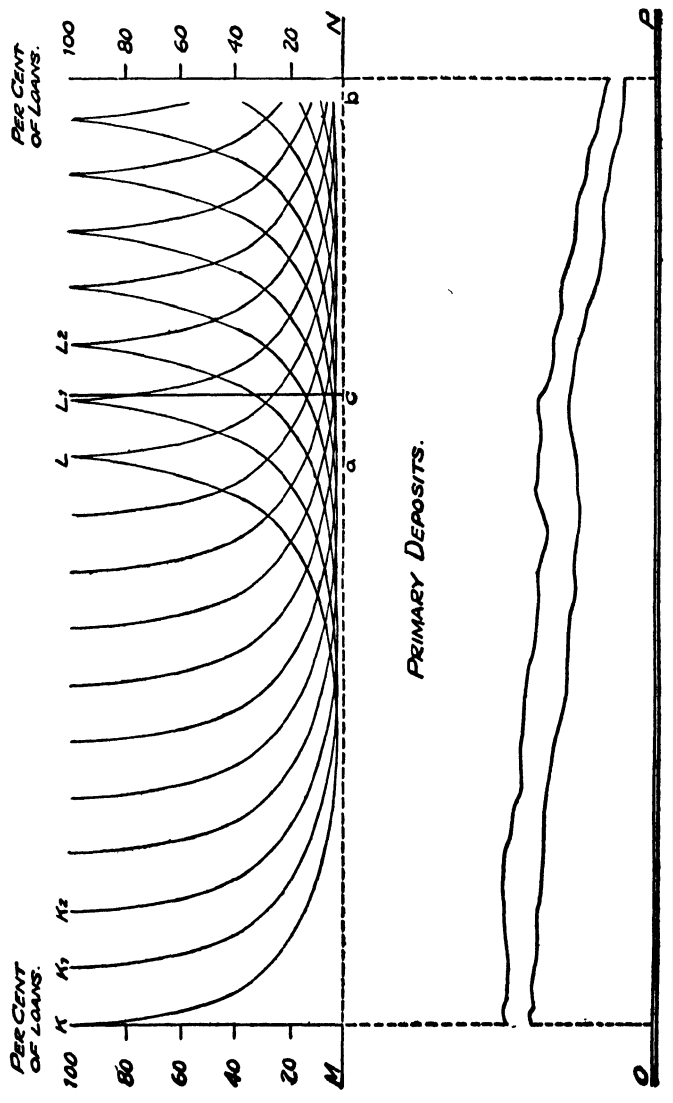

PER CENT OF LOANS.
100
80
60
40
20
M
K
K1
K2
PER CENT OF LOANS.
100
80
60
40
20
N
L
L1
L2
a
b
c
PRIMARY DEPOSITS.
O
P

Diagram 2

per cent; the *average* derivative deposit balance being 20 per cent. Whatever point of time is taken, the derivative deposits are substantially the same in amount.

If the diagram were drawn with derivative deposit curves asymmetrical and representing loans of varying maturities, irregularity would tend to offset irregularity, and substantially the same result as stated above would be obtained, as such a diagram, if drawn by the reader, would plainly show.

Quantitative Determination of Individual Bank Loan Expansion Traceable to the Acquisition of Primary Deposits

Our understanding of the nature of commercial banking operations and of the nature of primary and derivative deposits will enable us now to proceed with the development of a formula for the determination of the amount that any given *individual* bank in a system can add to its item of loans and discounts on the basis of additional reserve deposited with the bank.

The magnitudes involved, with convenient abbreviations, are as follows:

The additional cash or reserve (c);

Overflow cash, *i. e.*, what a bank tends to lose as the result of making the additional loans (c_1);

Loan expansion resulting from additional cash (x);

The ratio of cash or reserve to deposits (r);

The ratio of derivative deposits to loans (k).

Since (1−k) is equal to the percentage of loans checked against by borrowers, it follows that

$$c_1 = (1-k)x.$$

Since the lending banker will make his loans of such an amount that the cash left in the bank after the overflow cash has been paid out will be equal to the reserve required for (1) the original cash deposit and (2) the derivative deposits arising from the loans, (rc+rkx) would equal the cash which the banker would have to retain as reserve, c being the *amount* of the cash deposit and kx being the *amount* of the derivative deposits, and r being the reserve-deposits ratio. If (rc+rkx) is retained by the bank, the amount of overflow cash, c_1, may be found by subtracting (rc+krx) from c. Hence,

$$c_1 = c-(rc+krx) \text{ or } c-rc-krx.$$

Since c_1 is also equal to (1−k)x,

$$(1-k)x = c-rc-krx.$$

Transposing,

$$krx+(1-k)x = c-rc.$$

$$\text{or } (kr+1-k)x = c-rc,$$

$$\text{and } x = \frac{c-rc}{kr+1-k}$$

$$\text{or } x = \frac{c(1-r)}{kr+1-k}$$

The application of the formula to any given bank is simple. Take a deposited cash accretion of $1,000 in the case of a bank having a reserve-deposits ratio of

10 per cent and a derivative deposit-loan ratio of 20 per cent.

Under these conditions

$$c = \$1{,}000 \qquad r = .10 \qquad \text{and} \quad k = .20.$$

Making substitutions in the formula, in order to ascertain the loan expansion practicable on the basis of the new deposited cash amounting to $1,000, we have

$$x = \frac{1000(1-.10)}{.02+1-.20} = \frac{900}{.82} \text{ or } \$1097.56$$

The application of the formula indicates of course that the amount ascertained can be loaned *in excess of what could have been loaned* had the additional primary deposits not been obtained. If, owing to gold exports or other circumstances, banks were contracting their loans, the acquisition of additional primary deposits by a given bank might serve only to prevent or even check contraction of its loans by the amount ascertained by the application of the formula.

It is evident from a glance at the formula that the higher the cash-deposits ratio, the lower will be the loan expansion: and the higher the derivative deposit-loan ratio, the greater the loan expansion.

It is also observable that whenever $(1-r)$ is equal to $kr+1-k$, the loan expansion rendered practicable by an additional primary deposit will equal that primary deposit. The following table gives combinations of cash-deposit and derivative deposit-loan ratios that admit of loan expansion equal to additional primary deposits.

Cash-Deposit Ratio		*Derivative Deposit-Loan Ratio*
5 per cent	and	5.26 per cent
7 " "	and	7.52 " "
10 " "	and	11.11 " "
13 " "	and	14.94 " "
15 " "	and	17.64 " "
17 " "	and	20.48 " "
20 " "	and	25.00 " "

Since kr is of very slight quantitative importance, being only a fraction of a fraction, it follows that if $(1-r)$ in the numerator of the formula is matched quantitatively by $1-k$ in the denominator, *i. e.*, if r equals k, the bank to which the magnitudes relate would be able to keep its loans moving upward in *almost* equal step with increasing primary deposits.

Qualifications of the Formula

The formula, $x = \frac{c(1-r)}{kr+1-k}$, calls for qualification. A certain proportion of checks drawn by borrowers will be in favor of depositors of the drawers' bank and, to that extent, *cause no loss of cash by that bank.* Overflow cash, it may be contended, particularly in a country having few banks, and especially in one-bank towns, would be reduced, and the bank's lending power made greater than would be indicated by the formula.

The importance of this contention is minimized, however, if we bear in mind that the ties and relations of trade and exchange between community and com-

munity, section and section, are so numerous and of such far reaching ramifications as to make certain the very early drawing of checks by customers of the bank that receives an addition to its primary deposits in favor of creditors that are *not* depositors in the drawers' bank.

But we will not deny that the drawing of checks by borrowers in favor of depositors of the lending bank has almost the same significance to the lending bank as a higher ratio of derivative deposits to loans: instead of leaving borrowed funds on deposit in his own name, the borrower transfers them to some other depositor of the same bank.

To this qualification may be added a second. Any given bank, bank A, let us say, which has extended its loans on the basis of new reserve may become the depository for overflow cash lost by other banks in the system that have themselves loaned on the basis of cash received as a result of the loans made by bank A. Such a back-flow of overflow cash would be tantamount to a correspondingly higher ratio of derivative deposits to loans. In a country like Canada or Scotland, having only a few banks, this consideration has great significance; in the United States, with more than twenty thousand commercial banks, it is of little quantitative importance.

A third circumstance needs to be mentioned in this connection. Discount taken by a bank at the inception of an advance, making the proceeds thereof somewhat less than the face of the borrower's obligation, would add very slightly to the loan expansion as ascertained by the formula. The proceeds of the advance

being less than the advance itself, overflow cash would be correspondingly reduced, and the loan expansion at the time somewhat greater than if the bank deducted no compensation.

Perhaps we shall give due weight to the qualifying factors just mentioned, if we think of the derivative deposit-loan ratio of a representative American bank as approximating the maximum estimate of 20 per cent given on page 45 rather than either the simple arithmetical average or median, 10 per cent.

It is desirable in passing that attention be called to the use of the phrase "loan-expansion" (or "addition to loans"). On account of a lag between the time a loan is made and the payment of checks drawn against the proceeds, there tends to be an interval during which larger loans might be made than the application of the formula would indicate. It is equally important, however, to observe that the middle period of an advance witnesses a marked depression in the derivative deposits curve (see diagram 1) which offsets the high derivative balances at the first and last ends of the loan period. The phrase "loan expansion" encompasses the entire life-span of the advances made.

The Distribution of New Reserve as the Foundation of Manifold New Loans

So far we have been concerned with how great an addition an individual bank could make to its loans and discounts as a result of the net addition of a given amount of primary deposits. Let us turn now to the less difficult matter of *the way* in which *new* cash be-

comes widely distributed as the basis of new and manifold loans in the banking system.

It has been seen that the deposit of a given sum of new reserve typically admits of the extension of loans somewhat in excess of that sum by the bank receiving the deposit, and that the loan expansion in turn results in an overflow of cash, somewhat less than that deposited, to other banks in the system. The overflow cash in the banks to which it goes also becomes the foundation of loans somewhat greater than itself; and these loans in turn are productive of an overflow of cash somewhat less than the previous overflow. This chain of operations continues, each bank that receives a part of the overflow at any stage of the process retaining a fraction, but only a fraction, of what it receives, until the cash becomes very widely distributed, and the total loan expansion results in deposits sufficient to take up the slack in the reserve-deposits ratio of the banking system. If the reserve-deposits ratio is 1 to 10, the total loan expansion would be 9 times the amount of new cash, as already explained.

The nature and significance of the series of operations just described may be shown by means of diagram 3. The first rectangular area at the left, marked c, represents a given amount of cash or reserve lodged in bank A. The area p directly below the cash area, and equal to it, represents the deposit arising from the receipt of the reserve by the bank. It has been shown that an individual bank having a cash-deposits ratio of 10 per cent and a derivative deposit-loan ratio of 20 per cent may make new loans, in addition to its normal volume of loans, somewhat in excess of a given

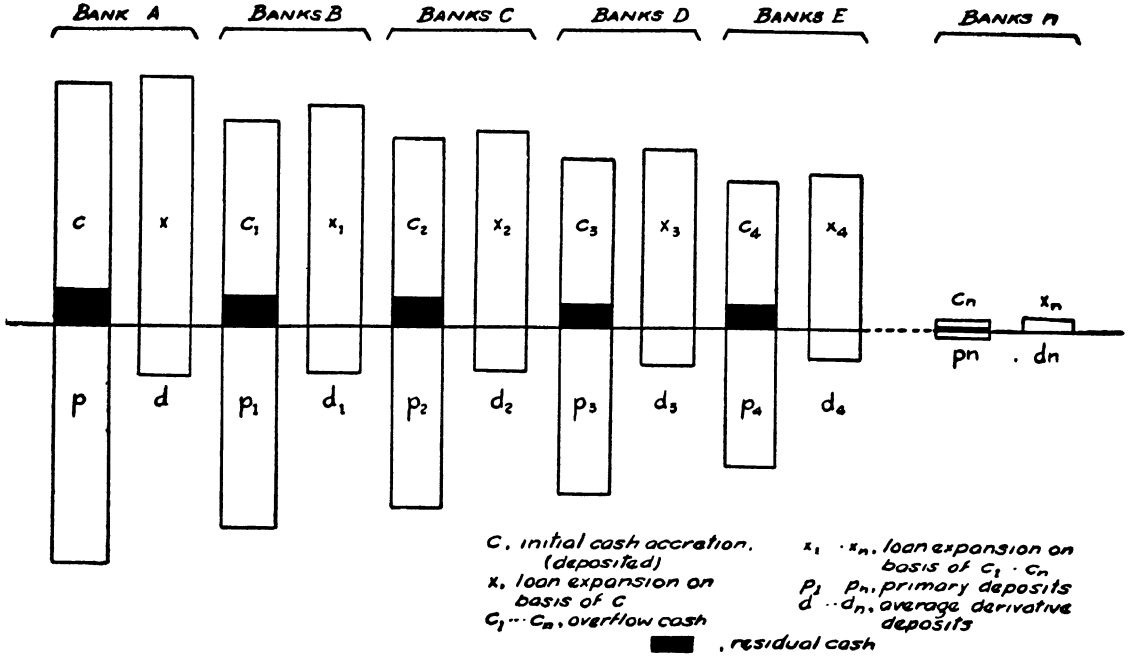

BANK A
BANKS B
BANKS C
BANKS D
BANKS E
BANKS n
C
X
C1
X1
C2
X2
C3
X3
C4
X4
Cn
Xn
P
d
P1
d1
P2
d2
P3
d3
P4
d4
Pn
. dn
C. initial cash accretion. (deposited)
X. loan expansion on basis of C
C1 ··· Cn, overflow cash
X1 · Xn. loan expansion on basis of C1 · Cn
P1 Pn. primary deposits
d ··dn, average derivative deposits
, residual cash

Diagram 3

addition to its cash. Accordingly, rectangle x, representing loans made as a result of the lodgment of the reserve, is somewhat larger than rectangle c. As a consequence of making loans represented by rectangle x, the bank loses cash, "overflow" cash, indicated by rectangle c_1, which is equal to the unshaded portion of area c. Rectangle x, new loans, minus rectangle c_1, "overflow" cash, must give rectangle d, derivative deposits. Rectangle c minus rectangle c_1 gives residual reserve, *i. e.*, that portion of the new reserve lodged in bank A which is retained by bank A. Retained or residual reserve is represented in rectangle c (and in all the "overflow" cash rectangles) by a small darkened area. Rectangle p_1 indicates deposits traceable to the receipt of "overflow" cash by bank, or group of banks, B. Rectangle x_1 represents loans made by bank, or group of banks, B, on the basis of the "overflow" cash received from bank A. Rectangle c_2 represents "overflow" cash received from bank, or group of banks, B, by bank or group of banks C; rectangle x_2, the consequent new loans made; rectangle p_2, deposits arising from the receipt of "overflow" cash and d_2, derivative deposits. The same circle of explanation continues with reference to the magnitudes remaining until "overflow" cash finally becomes a negligible quantity.

The sum of the series x, x_1, x_2, . . . etc. is equal to X, the loan expansion traceable to c within the banking system, X being equal to $\frac{c\,(1-R)}{R}$. The sum of the two series p, p_1, p_2, . . . etc. and d, d_1, d_2, . . . etc. is equal to D, the expansion of deposits within the system, which

in turn equals $\frac{c}{R}$. (In this chapter r is used to indicate the reserve-deposits ratio of the individual banks, and R, the reserve-deposits ratio in the system as a whole. Since the system of banks is assumed, for the sake of simplicity, to be homogeneous, r = R.)

Relation of Loans to Deposits

An examination of the diagram will show clearly the relation of deposits to loans and of loans to deposits in an individual bank and in the system as a whole. It is evident that loans when made by a bank or group of banks rest chiefly upon primary deposits. An addition made to the loan item on the basis of a primary deposit may somewhat exceed that deposit in amount; but *at the time the loan is made there is a foundation of reserve resulting from the primary "deposit" only slightly less than the new loan.* The possession of reserve to an amount nearly equal to new loans is a prerequisite to making such loans. In order that a bank may add a given amount, $100,000 or $1,000,000, to its loan item it is essential that the bank secure new primary deposits approximately as great. Hence the struggle for primary deposits. In the case of an *individual* bank, additional reserve arising from primary "deposits" (not to mention cash arising from the payment of capital stock or surplus) conditions fundamentally the amount of additional loans.

Moreover, the loans of one bank give rise to deposits —somewhat less than those loans—of other banks, the process continuing with the primary deposits approaching zero as a limit, as shown in the diagram. The loans

of any given bank, (bank A in the diagram, for example,) also result in derivative deposits for that bank of such magnitude that, if added to the primary deposits made in bank or group of banks B, as a result of the loans made by bank A, will equal the loans made by bank A. It follows that *for the banking system* deposits are chiefly the offspring of loans. *For an individual bank* loans are the offspring of deposits.

How the Withdrawal of Cash from an Individual Bank Effects a Wide-Spread Contraction of Loans and Deposits

The explanation given of the way in which an increase in the cash holdings of a bank results in a general expansion of loans also enables us to understand the way in which the withdrawal of cash from a bank tends to effect a general contraction of loans. A depositor's withdrawal, for export, of cash of $1,000,000, let us say, from bank A in the diagram would normally require bank A to contract its loans, *not by $1,000,000 but by $1,097,560.97;* otherwise its cash-deposits ratio would be distorted. Since the loans gave rise, during the loan period, to a derivative deposit of 20 per cent, the loan contraction of bank A, amounting to $1,097-, 560.07, would draw in *cash* of only $878,048.78 from the other banks in the system,—in a fashion just the reverse of the way in which that cash became distributed; and bank A, after losing the $1,000,000 in cash would be in the same situation as before its receipt as a deposit and the consequent loan expansion. The difference between $1,000,000 that the bank would lose and $878,048.78 that would be drawn in through loan

contraction would be made up of cash *held* as a 10 per cent reserve against (a) the primary deposit of $1,000,000, now being withdrawn, and (b) the derivative deposit of $219,512.19.

If the deposit account of Barker, Brown and Company is transferred from the Chase National Bank of New York to the Chemical National Bank, the former will tend to contract its loans by an amount somewhat in excess of the deposit balance transferred, in order to meet the unfavorable clearing house balance arising from the loss of the account. The calling of the loan by the Chase sets in motion a circle of loan contraction, entailing a loss of cash by bank to bank,—the loss diminishing as the circle spreads. But the spread of the circle of contraction, with its concentric movement of cash will very soon be opposed by the spread of a circle of expansion incident to loan extension by the Chemical, based on the cash received from the Chase as a result of the transfer of the account of Barker, Brown and Company. In the circle of contraction set in motion by the Chase the force of the movement of cash is centripetal. In the circle of expansion set in motion by the expanded loans of the Chemical the force affecting the cash is centrifugal. The strength of the force in each case, speaking loosely, if not jocosely, would vary inversely with the distance. Let the reader observe again the darkened areas in the diagram.

It is important not to overlook the fact that the loan expansion of the Chemical National Bank as a result of acquiring a new deposit account was roughly equal to the loan contraction which the loss of the

account necessitated in the case of the Chase. Just as it was necessary for the Chase to contract its loans only slightly in excess of the amount of the balance transferred in order to meet the unfavorable balance arising from the transfer, so the loan expansion of the Chemical that was rendered practicable by the acquisition of the cash coming through the clearing house as a result of the transfer of the account would be only slightly in excess of the new cash received.

Banks struggle to secure the accounts of their competitors' customers, not because the new cash arising from the new deposit balances will enable them to lend several times the amount of the deposits, but because it will enable them to lend approximately as much as the deposits,—and on the average probably a little more.

Why Banks Compete for Deposits

Now the customary and current explanation of the theory of bank credit maintains that a bank can lend eight or ten times the amount of its cash deposits. "That explains," says Professor Agger,[1] "why the bank can afford to maintain an expensive establishment, to supply stationery and to undertake free of charge the collection of checks, coupons, etc., for its depositors. In the banking business nothing succeeds like deposits."

Apart from the demonstration already given that an addition to the deposits of a bank normally carries a power of loan extension only approximately equal

[1] Eugene E. Agger, *Organized Banking*, Henry Holt and Company, New York, 1918, p. 33.

to the cash acquired, it should be pointed out that bankers would scarcely feel constrained to make so low a bid for deposits as they now make, if their lending power were enhanced by eight or ten times the amount of the deposit. If a banker were able to lend $50,000 as the result of securing a new primary deposit of $5,000, why would he hesitate to pay interest on the deposit? Would not competition force the rate paid on deposits above the nominal figures now obtaining?

A representative bank with a cash-deposits ratio of 10 per cent and a derivative deposit-loan ratio of 20 per cent, securing additional primary deposits of $200,000 would be able to add approximately $220,000 to its loan item and would retain approximately $24-, 400 in cash as a reserve against the $244,000 deposits ($200,000 primary deposits and $44,000 derivative) owed by the bank after the proceeds of the loans had been drawn against by the borrowers. Its loans would be approximately nine times the cash on hand but the cash on hand would be only a fraction of the cash deposited. Primary deposits have almost no multiplicative importance as a basis for loans. A representative bank is able to pay reasonably large dividends, not because primary deposits can be made the basis of manifold loans by that bank, but because its total loans (and investments) are several times the amount of the bank's capital.

A representative commercial bank in the United States has loans and discounts equal roughly to ten times its capital. Its *gross* earnings from interest and discount therefore would be sufficient to pay a dividend of 50 per cent upon the capital, if the bank

charged its borrowing customers 5 per cent on their loans. The expenses of the business might absorb one-half or three-quarters of the gross earnings and still leave an amount ample for dividend purposes. Banking is profitable, not because an individual bank can lend ten dollars as a result of receiving one dollar on deposit, which is not true, but essentially, because a bank can normally lend an amount roughly equal to its primary deposits. As primary deposits are a requisite to and (roughly speaking) a measure of loans, these deposits are eagerly sought as an indirect source of profit. How much more eagerly they would be sought if they conferred upon the bank receiving them the power to lend ten times their amount, as the current theory holds, is problematical.

The Assimilation of an Individual Bank to the System

The way in which an individual bank during the early stages of its existence becomes assimilated to the system is now easily explained. Let us suppose that a newly established bank having a capital of $100,000, paid in cash, receives cash deposits of $200,000 and, further, that the bank invests $75,000 in government bonds, and $25,000 in building, furniture and fixtures. The balance sheet would show:

Assets		*Liabilities*	
U. S. Bonds	$ 75,000	Capital	$100,000
Real Estate, Furniture and Fixtures	25,000	Deposits	200,000
Cash	200,000		
	$300,000		$300,000

How much can this bank lend without impairing its cash-deposits ratio, and without obtaining additional primary deposits, if a cash-deposits ratio of 1 to 10 is determined upon as affording a maximum profit consistent with reasonable security against a shortage of cash and if, also, the bank enjoys a 20 per cent ratio of derivative deposits to loans? Since the bank in question has a derivative deposit-loan ratio of 1 to 5 or 20 per cent and a cash-deposits ratio of 10 per cent, it would be able to lend, the application of the formula shows, approximately $220,000.00 and would lose approximately $175,000.00 in reserve to other banks in the system. Any additional loans would be conditioned by additional *primary* deposits, or to speak more accurately, by additional reserve acquired, the acquisition of which would give rise to primary deposits.

The application of our formula will show that the balance sheet of the bank under consideration, after unfavorable clearing house balances arising from the withdrawal of loan-proceeds have been paid, would present the following items.

Assets		*Liabilities*	
Loans and Discounts..	$219,512.19	Capital.....	$100,000.00
U. S. Bonds.....	75,000.00	Deposits.....	243,902.44
Real Estate, Furniture and Fixtures..	25,000.00		
Cash.....	24,390.25		
	$343,902.44		$343,902.44

If, as time passes, the bank secures additional primary deposits of $400,000 it would be able to increase

its loans to $658,536.57. Its volume of deposits would then be raised to $731,707.30 and its cash to $73,170.73, and the statement would stand as follows:

Assets		*Liabilities*	
Loans and Discounts	$658,536.57	Capital	$100,000.00
U. S. Bonds	75,000.00	Deposits	731,707.30
Real Estate, Furniture and Fixtures	25,000.00		
Cash	73,170.73		
	$831,707.30		$831,707.30

For the sake of greater clarity in the development of all the formulas thus far given, slight cognizance has been taken of bank profits consisting of interest or discount. Although the inclusion of such profit was not necessary to establish the general principles developed, it will not be amiss now to say that undivided profits are invested without at any time being set aside as ear-marked funds. If invested in loans and discounts, such profits remain in the bank only to the same extent as does cash which when lodged in the bank, matching primary deposits, justifies an increase in loans. There is one point of difference; no reserve needs to be maintained against undivided profits. Accordingly, cash that represents the payment of interest or discount or other form of undivided profits, constitutes a base for somewhat greater loan expansion by an individual bank than does the same amount of cash arising from deposits. Thus $10,000 net profit arising from banking operations and temporarily held by the bank in cash as surplus reserve would justify an

extension of loans amounting to $12,195.12, if a cash-deposits ratio of 10 per cent is adhered to and 20 per cent of the funds borrowed are left on deposit on the average.[1] As 80 per cent of $12,195.12 or $9,756.10 would be checked against on the average, a reserve would need to be held against derivative deposits of $12,195.12—$9,756.10 or $2,439.02; that is, $243.90 would be retained by the bank and $10,000—$243.90 or $9,756.10 would overflow to other banks. If we now incorporate in the balance sheet the item of $10,000 undivided profits, loans of $12,195.12, cash increase of $243.90, deposits increase of $2,439.02, the

[1] The formula for the determination of the amount that a bank can lend on the basis of surplus reserve is, $x = \frac{c}{kr+1-k}$, where x equals the loan expansion; c the surplus reserve; k, the ratio of the derivative deposits to loans; and r, the cash-deposits ratio.

The derivation is simple. Since k equals the ratio of derivative deposits to loans, the lending banker knows that $(1-k)$ times the amount of the new loan will be withdrawn. Therefore, if we let c_1 stand for overflow cash, $c_1 = (1-k)x$. The lending banker will make his new loans of such an amount that after the overflow cash has been let go, he will still retain a sufficient amount of the surplus reserve to constitute a reserve against the derivative deposit resulting from the loan; that is, the banker will make his loans of such an amount that c_1 will equal $c-krx$. Since c_1 equals $(1-k)x$ and also equals $c-krx$,

$$(1-k)x = c-krx.$$

Transposing, $krx+(1-k)x = c.$

Or, $(kr+1-k)x = c,$

and, $x = \frac{c}{kr+1-k}.$

If we substitute $10,000 for c, 20 per cent for k and 10 per cent for r, the loan expansion of $12,195.12 is obtained.

statement will reflect the condition of a bank assimilated to the system:

Assets		*Liabilities*	
Loans and Discounts	$670,731.69	Capital	$100,000.00
U. S. Bonds	75,000.00	Undivided Profits	10,000.00
Real Estate, Furniture and Fixtures	25,000.00	Deposits	734,146.32
Cash	73,414.63		
	$844,146.32		$844,146.32

The reader can easily calculate the loan expansion that would be practicable in the case just considered, were the current and traditional theory a piece with the facts.

Summary—The Old Theory and the New Contrasted

It has been seen that the current theory of bank credit is predicated upon the contention that a bank would be able to make loans to the extent of several times the amount of additional cash newly acquired and held *at the time the loans were made,* whereas a representative bank in a system is actually able ordinarily to lend an amount only roughly equal to such cash. Writers in the past have assumed that the ratio of loans to cash on hand *after* the loans were made, as in the case of a representative bank thoroughly assimilated to the system, was an accurate measure of new loans that could be extended on the basis of new reserve. They have overlooked the pivotal fact that an addition to the usual volume of a bank's loans tends to result in a *loss of reserve* for that bank only somewhat less on the average than the amount of the additional loans. The reserve retained, what we have

called residual cash or residual reserve, is only a fraction, on the average throughout the loan period, of additional loans made. The *residual* cash supports loans,—and deposits,—several times as great as itself, but the residual cash is only a fraction of the cash accretion, the possession of which prompts the banker to expand his loans. Manifold loans are not extended by an individual bank on the basis of a given amount of reserve. Instead, as a consequence of lending, the reserve of the individual bank overflows, leaving only the equivalent of a fractional part of the additional volume of loans extended, the overflow cash finding its way to other and still other banks until it becomes the "residualized," yet shifting, foundation of manifold loans and deposits.

The normal ratio of cash to deposits and to loans in an individual bank, in a word, is reached through the three-fold process of (1) cash acquisition coupled with an equal addition to deposits (2) loan expansion with the corresponding deposits heavily drawn against by check, resulting in (3) cash overflow or contraction. The same ratio in the banking system, which may be likened to a single great bank doing the entire banking business of the country, is reached through the two-fold process of (1) cash acquisition offset by equal deposit expansion and (2) manifold loan and deposit expansion.[1] The distinction already made between

[1] As will be shown in the next chapter bank loan expansion in any given country tends to result in an "overflow" of cash to other countries, analogously to the individual bank, unless an offsetting credit expansion or other offsetting circumstances obtain in those other countries.

the manner of the loan expansion of an individual bank and that of the banking system is at once the foundation and pinnacle of the theory here advanced.

Anticipated Criticism Answered

It is anticipated that criticism of the theory developed in this chapter will center around the contention that an individual bank can lend as a result of a deposited accretion to its reserves, and without an impairment of its reserves, an amount roughly equal to the product of the reserve accretion and the deposits-reserve ratio (not reserve-deposits ratio) of the bank, the contention being based on the notion that the new loans would result in no loss of cash by the lending bank because checks drawn upon the lending bank by its depositor-borrowers against the deposited proceeds of the new loans would be offset by the deposit in the lending bank of a corresponding amount of checks —received by its customers in the course of business —drawn upon other banks in consequence of loans made by those other banks to *their* depositor-borrowers.

If all banks were expanding their loans at the same rate, in connection with simultaneous additions to their reserves, the contention would be valid. But additions to the reserves of a banking system, except in the most extraordinary case, are made, at any given time, not by the deposit of cash simultaneously in all the banks of a system but by the deposit of funds in only a small proportion of the banks, whence they are scattered throughout the system.

In the usual case a bank receives additions to its reserves from either (1) other banks in the system or (2)

from sources outside the banking system—imported or newly mined gold. If additional cash is received by any bank from sources outside the system that circumstance would not impel *other* banks in the system at once to expand their loans, thereby accommodatingly preventing a loss of cash on the part of the bank whose reserves had been augmented and whose loans had been consequently increased, even though later the other banks would tend to expand their loans, as soon as "overflow" cash fell into their possession, as has been explained.

Likewise, if the addition to the reserves of an individual bank, bank A, came from some other bank or banks within the system, that circumstance would tend to effect a *contraction* in the loans of the bank or banks losing the reserve, and instead of their depositor-borrowers drawing more checks than formerly, as would be necessary if the swollen volume of checks drawn on bank A were to be offset, they would tend to draw less!

Conclusively, if the claims of the Des Moines National Bank upon all other banks and the claims of all other banks upon the Des Moines National Bank balanced and cancelled before the acquisition by that bank of a certain addition to its reserves and prior to an expansion of loans consequent to that addition, those claims would not balance and cancel after the loan expansion had been made and the proceeds drawn upon by the borrowers, the checks drawn by the depositor-borrowers and remitted to their creditors placing other banks in the system in a position to lay claim to cash in the vaults of the lending institution.

The old contention that no cash would be lost by the bank that increased its loans, under the conditions given, that counterclaims would still balance, was the fruit of confusing the operations of a bank with the operations of a banking system. Some serious, if not surprising, consequences of this confusion will be dwelt upon in chapter five, to which we may pass either directly or by way of chapter four.

CHAPTER IV

Inter-Relations of Cash, Loans and Deposits Considered Further

The preceding chapter, which drew a sharp line of distinction between loans of individual banks and those of the banking system, has paved the way for further consideration of certain inter-relationships of items of the balance sheet in both individual and collective banking. In the present chapter the dynamic inter-relations of cash, loans and deposits will be taken up; in the following chapter, surplus in relation to loans and the principal creditor liabilities will be discussed.

Cash in Relation to Loan Expansion in Individual and Collective Banking

It was pointed out in chapter II that there is a two-fold check on a banker's impulse and ability to increase his profits by liberal lending. An expansion of loans by an individual bank tends to cause cash to fall and deposits to rise, the rise in deposits being the temporary forerunner of an actual loss of reserve—a loss of reserve, albeit, somewhat less than the loan expansion, as we have seen. But loss of cash as a result of increased loans, which is a powerful check on the loan expansion of an individual bank, tends to become inoperative if all banks within a credit area expand their loans with equal rapidity. If all the banks in a

system[1] are increasing their loans and investments at the same rate, the cash of any one bank will tend to remain constant. This is true because (a) direct withdrawals of cash by borrowers from any one bank will be offset by the deposit of actual cash coming from other banks into the hands of that bank's depositors, and (b) the liberal loan policy of other banks will place their borrowing customers, who are at the same time depositors, in a position to draw more checks than previously, which in due proportion will be sent in payment of obligations to the customers of our given bank, where they will be deposited and used *instead of cash* to offset checks drawn upon that bank by its depositor-borrowers and forwarded to it by the drawees through the established channels for payment. In the banking system as a whole where loans (less the discount allowed to accumulate as undivided profits or surplus) tend to result in deposits, the check imposed upon expanding loans by the direct or indirect withdrawal of cash from the institutions indulging in liberal lending is, therefore, inoperative. The cash that leaves one bank finds a resting place in another. If the reserve of one bank is reduced, that of another, or of others, is augmented. For the banking system as a whole, the only check on expanding loans is that represented by swelling deposit liabilities.[2]

[1] By system of banks is meant not the banks operating under the authority of a given law or laws, as the national banks or state banks, but banks united by the ties of cash and credit relationships.

[2] It is not overlooked of course that an over-extension of deposit liabilities would tend to cause a rise in prices and an exportation of gold—a fact that has little significance in this immediate connection,

Regulation of Ratio of Cash to Deposits in Individual Banking

When a certain more or less normal or representative ratio of cash to deposits has been reached in the life history of a bank, that is, when the individual bank has become assimilated to the banking system of which it is a part, the ratio of cash to deposits is regulated and kept fairly constant through the banker's control over cash. If the banker's cash falls below what he regards as the line of safety in relation to possible cash demands of depositors, including both direct and indirect withdrawals, new loans are curtailed or discontinued until the inflow of cash coming from maturing loans has restored the ratio of cash to deposits to proper or desired proportions. If the demand for loans falls off locally and cash accumulates excessively, new outlets for the idle and redundant reserve are sought in out-of-town loans or in investments other than promissory notes.[1]

If, on the contrary, the ratio of cash to deposits becomes too much attenuated, the banker, always eager to maintain and even to increase the volume of his deposits, will try to restore the ratio to normality

however. The outflow of gold which would tend to check further loan and deposit expansion at home would tend, by the same token, to cause an expansion of the loan and deposit items in banks abroad.

Also see note, page 39.

[1] The rate of interest is frequently lowered in order to equate supply and demand in the loan market, but the wide-spread practice is to maintain the over-the-counter rate on customers' paper rather inflexibly and to accept whatever rate can be got for funds placed in the outside market.

by adding to his holdings of cash through curtailment of loans rather than by seeking a reduction in deposits, for the withdrawal of deposits would tend to reduce cash correspondingly. Although the correction of the ratio of cash to deposits when cash is low in relation to deposit liabilities tends to cause a slight reduction in deposits, occasioned by the curtailment of loans, that reduction occurs against the will of the bank management. The banker tries to increase his cash, when it gets low, without causing a reduction of deposits, but his action, in spite of his desire and effort to avoid the result, inevitably tends to lessen the deposit item. Calling loans and refusing to make new commitments to offset maturing paper tends to cause the individual banker's cash to increase and his deposits slightly to decline.

The individual banker's regulative or corrective power over the ratio of reserve to deposits is exercised, it is clear, through increasing or curtailing loans. The amount of his reserve in relation to demand liabilities at any given time will determine the advisability of lending more freely, thereby reducing cash and increasing deposits, or of lending less freely, thereby causing cash to accumulate and deposits to fall off. The banker's control over the cash-deposits ratio passes through the loan item as a medium of transmission.

The condition that is marked by the growth of cash in the vaults of a bank, and by declining loans and deposits when loans are being curtailed, and the condition that is marked by falling cash and rising deposits, when cash has become disproportionately large in relation to deposit liabilities and loans are consequently

being expanded,—both these conditions are constantly subject to correction. One day or one week or even month the banker lends or buys commercial paper freely, and the next day or next week or month trims his sails. The banker's cash-deposit ratio at the close of business today dictates the contraction or expansion of his loans tomorrow. Through his loan item the banker regulates the amount of his cash and, to some extent, of his deposits. Adjustment and correction of the ratio of cash to deposits are almost continuous.

A pertinent question arises at this point. If the banker, finding his deposit liabilities dangerously large in relation to cash—as he sometimes does after paying an unexpectedly heavy balance to the clearing house—proceeds to replenish his reserves by calling or curtailing loans, do not the deposits of an individual bank regulate cash? The answer is that for the individual bank in question the ratio which the bank management regards as being in the highest degree prudent and profitable has become distorted or disturbed. The bank management, with no desire to reduce its deposits, deems it desirable to increase its cash. Curtailment of loans, which is productive of augmented reserve, inevitably tends to effect a reduction of deposits. The restoration of the ratio of cash to deposits entails, then, a reduction in deposits and loans as well as an increase in cash, mutual determinism existing between the reserve and deposits. The motive force underlying the restoration of the ratio under this condition is the banker's fear that he may be unable to meet his demand liabilities, or else an unwillingness to evade legal reserve requirements.

But suppose the reserves of an individual bank are excessive in relation to deposits. Under this condition not fear or prudence or respect for banking law, but desire for greater profit becomes the motive underlying the correction or restoration of the reserve-deposits ratio, and the bank will increase its loans until, as previously pointed out, the combined force of impaired cash and enlarged deposits calls a halt. The increase in the individual banker's loans is limited by both a reduction in cash, which tends to take place as long as his loans are increasing, and, to a slight extent, by the increasing deposits resulting from the rising loans. It is not merely cash in the vaults of the individual bank that impels the banker to expand his loan item, but cash in relation to deposits. Both terms of the cash-to-deposits ratio are variable in the individual bank and tend to be affected in opposite directions, but not necessarily to the same degree, when loans are expanded or curtailed. For the individual bank that has become assimilated to the system cash and deposits are mutually determinative, and both are regulated by loans. Increase loans, cash goes down and deposits go up. Reduce loans, cash increases and deposits fall off.

Ratio of Cash to Deposits and to Loans in the Banking System

The relationship between cash and deposits and between cash and loans in an individual bank is very different from the same in the banking system regarded as an aggregate. In the banking system, at any stage of banking development, deposits and loans

are a function of cash.[1] An increase of cash in the banking system tends to be followed by a manifold increase in loans, the proceeds of which cause the deposits of the system to swell in approximately the same proportion as the loans. An increase in the cash of an individual bank, on the other hand, does not result in an increase in its loans and deposits equal to several times the amount of the new cash, but in a loan and deposit increase of scarcely more than the amount of the new cash. If an attempt were made by an individual bank to lend an amount equal to several times the cash newly acquired, unfavorable clearing house balances and, perhaps, withdrawals of cash over the counter, would in a short time reduce the cash of the bank below the line of safety,—a fact with which we are already familiar.

[1] There is a measure of mutual determinism between cash and deposits in the banking system considered as a whole. An increase of cash in the banking system tends to cause loans and deposits to increase. An increase in deposits, whether induced by an expansion in the money metal mined or by a fall in the ratio of cash to deposits, *tends to check the output of money metal through rising general prices.* On the other hand, if cash were to fall off in relation to trade, or if the cash-deposits ratio rose, a consequent lower general price level would tend to stimulate the production of gold. Whatever the degree of mutual determinism between cash and deposits, in the banking system as a whole, the action of the forces there at work is exceedingly slow in comparison with the action of the forces that determine the relationship between cash and deposits in the individual bank.

CHAPTER V

Surplus in Relation to Loans, Deposits and Reserves

Probably no phase of banking has been treated so inadequately and erroneously as has surplus, its nature, functions and relation to other items in the bank balance sheet. The defective treatment has been traceable measurably to factors already referred to in chapter II. Recently, however, in perhaps the most elaborate attempt at exposition and elucidation yet put forth, that of Professor Moulton,[1] still other considerations, with roots running deep into a traditional and current but nevertheless erroneous theory of banking, invalidate the main doctrine advanced, namely, that the accumulation of surplus in commercial banking tends to weaken the position of depositors, to reduce the chance of the ultimate redemption of deposits. An examination of this doctrine, which Professor Moulton develops skillfully, will serve as an introduction to a positive statement of relationship between surplus and loans, deposits, cash.

A New but Erroneous Doctrine of Surplus

Professor Moulton uses as an instrument of exposition a condensed balance sheet of a bank, reminding

[1] Harold G. Moulton, *The Surplus in Commercial Banking*, Journal of Political Economy, December, 1917, Vol. 25, pp. 1003–1018.

us that deposits arise out of loans and that the two magnitudes are, in the banking system as a whole, approximately equal. The simplified balance sheet from which his argument proceeds is as follows:

Assets		*Liabilities*	
Cash	$100,000	Capital Stock	$100,000
Loans	500,000	Deposits	480,000
		Interest and Discount Collected	20,000

It is correctly observed by Professor Moulton that

> The ratio of cash to deposits in the statement just given is 20.8 per cent. The ratio of assets to deposits, and hence the chance of ultimate liquidation, is $500,000 (loans) + $100,000 (cash) — a total of $600,000 — $480,000 (deposits), or 60 : 48 = 5 : 4.

As time passes the same bank accumulates a surplus of $20,000, which is assumed by Professor Moulton to be initially in the form of cash, accumulated from earnings.[1]

Whether it is admissible to proceed on the assumption that surplus is represented by cash is a question that will be answered later. We may now advantageously reproduce the following passages as containing

[1] "Of course in actual practice," says Professor Moulton, "the amount set aside as surplus is not represented by a like amount of cash that is not utilized until semi-annual dividend date. The process of investing 'surplus funds' is a continuous one and not semi-annual. For clearness of exposition, however, it is better to assume that surplus is represented by cash and that its investment follows rather than precedes the formal setting aside of such a fund." *Op. cit.*, p. 1011.

the kernel of Professor Moulton's contention that the accumulation of a surplus tends to impair the chance of the ultimate payment of creditor liabilities.

The same bank (*i. e.*, the bank whose balance sheet was last given) in time accumulates a surplus of $20,000. Let us assume that the $20,000 represented by surplus is initially in the form of cash, having been accumulated from earnings. On the basis of this new cash the bank now proceeds to expand its business by making additional loans. As a going concern it would then shortly present the following balance sheet.

Assets		*Liabilities*	
Cash	$120,000	Capital Stock	$100,000
Loans	600,000	Surplus	20,000
		Deposits	576,000
		Interest and Discount Collected	24,000

The ratio of cash to deposits is still 20.8 per cent. The ratio of assets to deposits, and hence the chance of ultimate liquidation, is $600,000 (loans) + $120,000 (cash) — a total of $720,000 — to $576,000 (deposits), or 720 : 576 = 5 : 4, the same as before the surplus was created. Resources have increased, it is true, but since deposit liabilities increased at the same rate the chances of the creditors being paid in full are no whit different from what they were without a surplus.

In fact, the depositors have a smaller chance of being paid in full than was the case before the surplus was created, for the reason that our banking laws provide that shareholders are doubly liable on capital stock, but not on account of surplus. When measuring the ultimate security of creditors this factor must be included. Correcting the foregoing ratios of assets to creditor liabilities by including the double liability of shareholders on capital stock we have, before the creation

of a surplus, $500,000 (loans) + $100,000 (cash) + $100,000 (double liability on capital stock) = $700,000 — to $480,000 = 35 : 24 or 1.458 to 1. In the second case it becomes $600,000 (loans) + $120,000 (cash) + $100,000 (double liability on capital stock) = $820,000 — to $576,000 = 205 : 146, or 1.404 to 1 — less than when there was no surplus account at all. It may be concluded therefore that rather than strengthening the position of the depositor the creation of a surplus really tends to weaken it.[1]

It is granted that of the bank statements reproduced from Professor Moulton's article the first shows a greater degree of protection to depositors than does the second. Whether the accumulation of a surplus would result in the condition indicated by the second statement is the crucial question.

The Doctrine Disproved

In what follows it will be shown that the accumulation of a surplus neither in an individual bank nor in the banking system as a whole results in such an increase in cash[2] and deposits as to neutralize, to say nothing of outweighing, the enhanced safety that the accumulation of surplus affords to depositors. We may consider first the case of an individual bank.

Let us assume, *pro argumento*, that it is practicable for an individual bank to set aside as surplus an amount of earnings represented specifically by a like amount of cash,—a basic assumption made by Professor Moulton,—and proceeding on that assumption, inquire whether a surplus thus represented by cash generates a

[1] *Op. cit.*, pp. 1011, 1012.

[2] Cash is used in this chapter synonomously with reserve.

several-fold expansion of loans and deposits in the manner described in the excerpts reproduced on pages 86, 87.

It was shown in a preceding chapter that the accumulation of surplus represented by an addition of a given amount of cash to the reserves of an individual bank would enable that bank typically to expand its loans by an amount approximately equal to, or somewhat in excess of, the new cash. It was also shown in the same chapter that new loans made tend to cause the bank extending the credit to lose, on the average, an amount of reserve only somewhat less than the amount of the loans. The addition of $20,000 to the surplus and to the cash would place the bank concerned in a position to add $24,390.24[1] to its previous volume of loans, if derivative deposits of the bank average 20 per cent of its loans and a reserve-deposits ratio of 10 per cent is maintained. Such an increase in loans would tend to result in the withdrawal of cash equal to $19,512.20, leaving $487.80 as a 10 per cent reserve to support derivative deposits of $4,878.05, *i. e.*, 20 per cent of the additional loans.

It is important to observe that the surplus "represented by cash" *ceases* to be represented by cash as soon as loans are expanded on the basis of the cash. The surplus remains, but the cash *largely leaves* to meet unfavorable clearing balances. The very act of utilizing the cash as a basis of loans causes its fugitive character to assert itself, with the result that loans are increased appreciably, deposits are increased slightly and cash, the earmarked cash that stood for the surplus, is very decidedly reduced.

[1] See page 71.

It must be clear that as long as the surplus was represented by cash it afforded additional protection to depositors and other general creditors. It must also be clear that when the surplus ceased to be represented by cash and that very cash, as a result of loan expansion, largely took flight to other banks, precluding the possibility of a deposits expansion equal to several times the amount of the surplus represented by cash, the surplus still remained intact. That is, the accumulation of a surplus represented by cash or not so represented does furnish additional protection to depositors, does improve the chances of the ultimate redemption of creditor liabilities in the case of an individual bank.

Having shown that the accumulation of a surplus by an *individual bank* tends to improve the chance of the ultimate redemption of deposits, we have now to consider the way in which the accumulation of a surplus affects the safety of deposits and other creditor items in the *banking system as a whole.*

Is there anything connected with the action of bank directors in building up surplus—at the expense of dividend payments—that would swell the amount of cash in a banking system? Would the diversion of earnings from dividends to surplus accelerate the production of gold, or swell the volume of our legal tender notes, or even prompt the managements of our Federal Reserve banks to adopt a more liberal policy with reference to note issues? Would the accumulation of a surplus cause business men and concerns and the general public to substitute checks for cash in making payments ordinarily and conveniently made with cash, to such an extent as to effect a balance between

surplus accumulating and the additional reserve? What would attract the cash from circulation into the banks? Not surplus "represented by cash," because such surplus would not come into being until the corresponding cash had come into the banks! It is inadmissible to assume that surplus accumulated in a banking system is represented by so much *additional* cash, because there is no creative connection between the accumulation of surplus and the cash that is assumed to correspond to that surplus. If the newly created surplus is not represented by *additional* cash within the banking system, additional deposits within the banking system could not be built up without reducing the cash-deposits ratio of the system.

What actually takes place in a banking system when surplus is accumulated may be made clear by resort to the consolidated balance sheet of all our banks taken in the aggregate. The following simplified and condensed balance sheet represents roughly the aggregate condition of the commercial banks of the United States as given in the report of the Comptroller of the Currency for 1918.

Assets		*Liabilities*	
Loans	$32 billions	Capital	$2.3 billions
Reserve	3 "	Surplus	2. "
		Undivided Profits	.7 "
		Deposits	30. "
	$35 billions		$35 billions

If a surplus of 1 billion is now accumulated in the course of a year, let us say, that procedure would not cause bank managements to reduce deposits in rela-

tion to cash. Such a reduction, if it is assumed to take place, would be *favorable* to the ultimate redemption of creditor liabilities. The accumulation of additional surplus amounting to 1 billion would neither increase nor diminish cash—although cash might *increase* or *decrease* during a given period of time on account of *other* factors. If cash remains stationary and deposits do not fall off *as a result of the accumulation of surplus*, the cash-deposits ratio remaining unchanged, it is obvious that loans, in the simplified balance sheet, must increase by the amount of the surplus,[1] and the statement of condition will now stand as follows:

Assets		*Liabilities*	
Loans	$33 billions	Capital	$2.3 billions
Cash	3 "	Surplus	3. "
		Undivided Profits	.7 "
		Deposits	30. "
	$36 billions		$36 billions

Since deposits have remained stationary and the excess of assets over liabilities other than those due shareholders has increased by 1 billion dollars, the ultimate chance of deposit redemption, as measured by that excess, has been enhanced.

Professor Moulton's contention that the accumulation of a surplus tends to weaken the position of de-

[1] A similar principle applies to surplus paid in or capital paid in. The shareholders in drawing checks with which to pay their subscriptions tend to reduce deposits in the system. But such a reduction of deposits is only temporary. Additional loans tend to result in a reëstablishment of the normal cash-deposits ratio.

positors is centered around the balance sheet of an individual bank, even though his own injunction is to emphasize the banking system as a whole as distinct from individual banks as units in that system. It will therefore be well to observe that the creation by an individual bank of a surplus "represented by cash" would tend to necessitate a reduction of cash somewhere else in the banking system. The loss of cash by other banks in the system would correspond roughly to that gained by the bank creating a surplus "represented by cash." Expansion and contraction in the loans and deposits of a banking system are regulated by the cash reserve of the system. If the cash is shifted from bank to bank, or from center to center, the expansion and contraction of loans and deposits also tend to shift. If the creation or accumulation of a surplus represented by cash takes place at one point in the banking system some other point or points, *ceteris paribus*, will have been forced to curtail their operations, reducing their loans in order to keep their ratio of cash to deposits within the customary limits of banking prudence. A swell in the cash, loans, and deposits in one quarter where surplus represented by cash was being built up would be offset by a corresponding depression in loans and deposits in other quarters whence cash was being withdrawn.

If within a banking system surplus goes up at a point gaining cash and down at the point or points losing cash, the net result would be, obviously, no change in surplus. If, within a banking system, surplus goes up at a point gaining cash and does not go down at the point or points losing cash, the net result would

be an increase in the ratio of surplus to deposits. In one case the surplus *in the system* does *not* increase; in the other, surplus in the system increases but deposits do *not*. Evidently, if surplus increases in the banking system as a whole and deposits and other creditor liabilities do not, the chance of the ultimate payment of creditor liabilities is enhanced.

Whether the accumulation of a surplus is considered in connection with an individual bank or in connection with the banking system as a whole, it is now plain that the chance of the ultimate redemption of creditor liabilities is improved by accretions to the surplus item.

What then is Professor Moulton's fundamental error? It is two-fold. In the first place, he assumes that an individual bank can increase its loans by several times—five times—the amount of its surplus reserve without losing cash to other banks in the system,—a mistaken contention that is traceable to his failure to distinguish carefully between the operations of an isolated bank, that would not lose cash as a result of loan expansion, and the operations of a bank that is only one of many units in a banking system, where loan expansion tends to result in a loss of cash by the bank whose loans are expanding.[1] This lack of clearness of distinction between individual and collective banking lies at the root of the fallacy that permeates his discussion.

The second error, namely, his assumption that the accumulating surplus of a *banking system* may be represented by cash, dovetails with the first and is scarcely less subtle and misleading. If the accumulation of

[1] See pages 37, 38.

surplus in a banking system[1] brought into being a corresponding accretion to the cash of the system, deposits in the system would tend to expand as indicated in the statements quoted on pages 85, 86 and the accumulation of surplus *would tend* to lessen the chances of the ultimate redemption of creditor liabilities. But the accumulation of a surplus does not bring into being any corresponding accretion to cash, as we have seen.

The Relation of Cash or Reserve to Surplus

There is a causal connection between cash or reserve and surplus, but the direction of the connecting forces is *from reserve to surplus through deposits*, and not from surplus to reserve. An accretion of cash or reserve to that of the banking system tends to be followed by a several-fold increase in deposits in the banking system, as we have seen; and an increase in deposits tends to be followed by an increase in surplus.

The larger the deposits in any individual bank, the larger will be the loans and investments and, therefore, the earnings from which surplus may be accumulated. Not only do larger deposits make it feasible to accumulate surplus, but they also make the accumulation desirable from the standpoint of the management and shareholders. As surplus strengthens the assurance

[1] Although Professor Moulton employs the balance sheet of an individual bank as an aid in exposition, he enjoins the reader to emphasize the banking system as a whole. "This emphasis," he says, "is necessary, for it is only by a study of the whole rather than of the individual parts that one can obtain an adequate understanding of banking organization." *Op. cit.*, p. 1011.

of the ultimate convertibility of deposits in the case of any given bank, a large surplus in relation to creditor liabilities should and does prove attractive to both actual and potential depositors. A relatively large surplus is probably more influential in determining the choice of correspondents by banks than in connection with the choice of a bank by a business house.

Banks that borrow from their city correspondents, as do many of our institutions, particularly in the South and West, are able to borrow more liberally and, perhaps, at more favorable rates when the shareholders' equity in the assets of their bank, as represented by capital, surplus and undivided profits, is large.

Large loans, which are almost invariably associated with large deposits, then, make the accumulation of a surplus easy and the dictates of sound and profitable banking make its accumulation desirable. The larger the deposits the larger tends to be the surplus. In the banking system as a whole, cash regulates deposits and deposits regulate surplus. Cash, therefore, regulates surplus. The relation of cash to surplus in the banking system may be represented accurately by the following simple diagram.

Cash ⟶ deposits ⟶ surplus

The regulatory relation of cash or reserve to surplus is loose and elastic, but of such a nature that in no case would an increase in surplus result in an increase in cash. If the ratio of reserves to deposits and that of surplus to deposits (which constitute the bulk of creditor liabilities) remained constant, an increase in cash would be accompanied by an increase in surplus

in direct proportion. Also if both ratios changed at the same rate and in the same direction, any change in cash would be accompanied by an exactly corresponding change in surplus. In American banking during the last generation the two ratios have changed in the same direction, but not at the same rates. The ratio of reserves to deposits in our national banks was 23.6 per cent in 1885, 17 per cent in 1910, and 10.4 per cent in 1918. The ratio of surplus and undivided profits to creditor liabilities was 12 per cent in 1885, 11 per cent in 1910, and 7.5 per cent in 1918.[1] The two items, cash and surplus, including undivided profits, were roughly equal in 1875 and a considerable degree of parallelism has continued to the present time.

The Ratio of Cash to Deposits and of Surplus to Creditor Liabilities

If surplus—and we might also include the other protective items, capital and undivided profits—is not represented by reserve, how can we explain this strong tendency toward direct variation between the two items? The explanation lies in the fact that substantially the same or similar forces effect changes in both ratios.

One of these forces, affecting both ratios, consists in the banker's conservatism. If a representative bank management becomes more conservative concerning the immediate convertibility of deposits, that same management would scarcely be expected to become less so with reference to the ultimate convertibility of

[1] Reports of the Comptroller of the Currency, 1885, 1910, 1918.

those deposits and other creditor liabilities. Increasing conservatism and prudence as to cash tends to be matched by increasing conservatism as to surplus. Individual cases of increasing caution and prudence as to cash and the reverse as to surplus are probably rare and fully offset by cases of dwindling caution and prudence as to surplus and the reverse as to cash. Conservatism is a factor, then, that affects the ratios of cash to deposits and of surplus to creditor liabilities unequally, nevertheless in the same direction. It is, of course, not denied that the maintenance of a surplus, always represented largely by productive assets, would seem to go less strongly against the grain of a typical bank management, whose prime aim is always profit, than would the maintenance of a large and "barren" reserve.

Besides the banker's prudence and conservatism or caution there is a group of forces, arising out of the economic and banking organization, that tends to keep the ratio referred to on an even keel. Certain changes taking place in the evolution of our economic organization, such as improvements in transportation facilities, quickened means of communication, the centralization of banking reserves and the creation of improved rediscount facilities admit of a certain reduction in the percentage of reserves without any impairment of immediate convertibility of deposits. If improvement in means of communication and transportation takes place, facilitating quick and speedy movement of cash from place to place, the banker can safely allow his reserve to fall off in relation to deposits, knowing that additional cash may be got promptly in

order to meet extraordinary needs. The centralization of reserves and the creation of assured facilities for rediscount enable the representative banker to conduct his business on an appreciably lowered reserve with even greater assurance of an unfailing adequacy of cash.

Mr. E. D. Hulbert in an address before the American Bankers' Association, September, 1918, gave point to the way in which the Federal Reserve System favored the certainty of meeting all demands of depositors easily and promptly, although that system has rendered practicable a decided reduction in the ratio of reserves to deposits:

> After four years of trial the Federal Reserve Act stands as one of the most successful and beneficent pieces of legislation ever enacted by Congress. What it has done for the country in promoting war finance cannot be computed. . . . It can safely be said that the banking business of the country has been carried on during the past four years, notwithstanding the unprecedented world disturbance, with less worry, foreboding and fear than the bankers of the United States have experienced in any other four years of their lives. . . .
>
> I cannot remember any four years since I have been a responsible officer of a bank when I had less anxiety as to the possibility and certainty of meeting all calls from depositors and borrowers as I have during the last four years.
>
> It has been demonstrated that financial panics can be nipped in the bud and normal conditions restored with rapidity under the operation of this system. There is no doubt that on at least one occasion since the system has been in operation we would have been forced to issue Clearing House Certificates under the old regime, and we all know that recovery from that kind of shock is slow. As it was the

banks converted over $200,000,000 of commercial paper into reserves in one day and met the emergency. No one, outside of the banks in the central reserve cities, knew that a crisis had occurred. Most of this loan was repaid to the Federal Reserve banks inside of ten days and as a shock absorber the efficiency of the system was demonstrated perfectly.[1]

Such changes in the economic and banking organization as have been mentioned admit of a reduction in the ratio of cash to deposits without impairing the immediate convertibility of deposits. It has so happened in the evolution of our economic order that certain other developments have occurred that permit a reduction in the ratio of surplus to creditor liabilities without an impairment of the chance of the ultimate convertibility of those liabilities.

Any institution or condition that reduces business losses, as for example, the growth in the extent and thoroughness of the work of the credit departments of business concerns, is favorable to the enduring and unimpaired value of bank loans,—on which the ultimate convertibility of creditor obligations of banks largely depends. The rise and development of the bank credit department has also had an extremely salutary effect upon the uniform soundness of bank assets.

New and stricter forms of bank supervision have done much to eliminate poor investments by banks. A more equable distribution of fire losses through an enlarged utilization of insurance tends to reduce

[1] E. D. Hulbert, *Trust Companies and the Federal Reserve System*, Trust Companies, October, 1918, Vol. XXVII, No. 4, p. 325.

business failures, supporting and stabilizing bank assets underlying the ultimate convertibility of creditor's claims. Such an improvement in banking facilities as was effected by the establishment of the Federal Reserve System is calculated, through a reduction in commercial losses and failures due to money stringencies and crises, to make the value of loans and discounts, bonds and other investments less subject to fluctuation and depreciation. Improvements in economic organization and underlying conditions during a given period may fully offset a marked reduction in the ratio of surplus to creditor liabilities, leaving the likelihood of the ultimate convertibility of those liabilities unchanged or even favorably affected.

The striking reduction that has occurred in the ratio of surplus to deposits and other creditor liabilities in our national banking system since its inception may not, and apparently does not, represent declining prudence on the part of our bank managements in safeguarding their customers against loss due to a shrinkage of bank assets. The improvement in economic organization and in fundamental conditions, if we look at the period as a whole, may have more than counter-balanced the relative decline in surplus. Our banks could not now withstand such large losses in relation to their creditor liabilities and still pay their creditors in full as they could have withstood forty or fifty years ago, but the creditors' interests are conceivably just as safe, even safer, today because losses corresponding in volume to those of the sixties and seventies are less likely to occur.

Perhaps no better evidence can be found that a

declining ratio of surplus (and the other protective items) to creditor libilities may be outweighed by improvement in the conditions underlying bank solvency than the declining percentage of loss to the amount of all deposits in our national banks since 1880. During the 33-year period, July 1, 1881, to June 30, 1914, the average annual percentage of loss to the amount of all deposits in national banks was .628. During the 3-year period, July 1, 1914, to June 30, 1917, the annual average percentage of loss was only .003 of all deposits in national banks.[1] In the two succeeding years the percentage of loss dwindled and disappeared, there being only one national bank failure in 1918 and none in 1919, a circumstance not untouched, however, by the favorable influence of flush times.

In brief, surplus tends to vary with reserve because forces are at work which cause the ratios of reserve to deposits and of surplus to creditor liabilities to vary in the same direction, if not to the same extent. Banking conservatism tends to affect each ratio in the same way. Changes in the economic and banking organization that admit of a reduction in reserves without any reduction in the chance of immediate convertibility of deposits are paralleled by other changes that have a similar influence and effect upon surplus in relation to creditor obligations. What has been said should not, however, be allowed to obscure the sharp line of distinction that lies between the nature of the relation of cash to deposits and that of surplus to creditor liabilities.

[1] Report of the Comptroller of the Currency, 1917, Vol. I, pp. 66, 67

The Relation of Cash to Deposits vs. the Relation of Surplus to Creditor Liabilities

The dependence of immediate convertibility of depositors' claims upon the provision of a cash reserve is of a different order from the dependence of the ultimate convertibility of creditors' claims upon the provision of a surplus (or even capital). The dependence of the immediate convertibility of deposits upon cash is both absolute and relative, whereas the dependence of their ultimate convertibility upon surplus (or even capital) is only relative. The creation of a surplus simply enhances the chance of the ultimate convertibility of deposits, that ultimate convertibility having been already reasonably assured. The existence of a cash reserve on the contrary is essential to any chance whatsoever of immediate convertibility, while an increase in cash, other factors remaining the same, simply enhances the chance of immediate convertibility, once a reserve has been established.

The banker is not so constantly and imperatively concerned with the ratio of surplus to creditor liabilities as he is with the ratio of reserve to deposits. Without the provision of a cash reserve a bank cannot continue to function, except during a period of suspension of cash payments. But a bank may do business indefinitely without a surplus. A bank may even be insolvent over a long period of time and still perform all the banking functions if it has a cash reserve.[1]

[1] For the case of a Canadian bank that was probably insolvent for forty years before its failure, see *Interviews on the Banking and Currency Systems of Canada*, Publications of the National Monetary Commission, 1909, p. 14.

CHAPTER VI

Bankers' Banks and Credit Extension

The Nature of Bankers' Banks

What the ordinary commercial bank does for its customers a bankers' bank does for banks. An individual bank economizes, mobilizes, and makes flexible in amount the funds of its depositing and borrowing customers; a bankers' bank economizes, mobilizes and makes flexible in amount the funds of commercial banks, but an accurate conception and comprehensive grasp of the theory of bank credit can not be had without considering the way in which these institutions economize or dilute cash reserves.

In the preceding chapter dealing with the manufacture of bank credit by commercial banks, as if they were unaided and uninfluenced by bankers' banks, it was convenient and legitimate to use the terms cash and reserve synonymously. In the present chapter, however, such usage is not permissible, for the very good reason that bankers' banks dilute cash, transforming or rather expanding it, into a larger amount of reserve. In this chapter, accordingly, we shall have to distinguish sharply between cash or cash reserve on the one hand and reserve on the other.

Bankers' Banks Dilute Cash

The way in which bankers' banks dilute cash may be made clear in the statement that the deposit liabilities of bankers' banks may constitute legal reserve for commercial banks; and the lower the cash-deposits ratio of the bankers' banks (and the lower, also, their ratio of cash to notes), the greater the dilution.

Federal Reserve Banks Illustrative

The Federal Reserve Act, which became law December 23, 1913, provided for the establishment of a group of regional bankers' banks, and since November 16, 1914, twelve such institutions have been in operation. The Federal Reserve banks, located in Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Dallas, Kansas City and San Francisco, are new creations, superimposed upon the previously existing system of national and state banks and trust companies. The old classification of national banks as Central Reserve City banks (all national banks in New York, Chicago and St. Louis), Reserve City banks (all national banks in about 50 cities like Columbus, Ohio, and Pittsburg, Pa.), and Country banks (all other national banks) is still retained and an effort may be required to distinguish these various classes of national banks from the recently established Federal Reserve or regional banks.

All national banks were required as the price of retaining their national charters to become members of the Federal Reserve system, by which is meant that

they were required to purchase stock, equal to 3 per cent of their capital and surplus in each case and to subscribe for an additional 3 per cent, in the Federal Reserve bank of the district, and to keep a part of their reserves on deposit with the regional institutions. State banks and trust companies have been allowed and encouraged to enter as members on substantially the same terms as national banks. Most state banks and trust companies of importance are members of the system.

Owned by member banks, the regional institutions are controlled mainly by (a) the Federal Reserve Board of seven members, appointees of the President of the United States, and (b) directorates, each consisting of nine men, six of whom are chosen by member banks of the district concerned and three by the Federal Reserve Board.

The principal functions of the Federal Reserve banks are to receive deposits from members and from the Federal government, to issue notes and to make loans. The regional banks render service to members that is analogous to that rendered by the members to their own customers.

A member bank borrowing from a Federal Reserve bank would commonly take the proceeds of the loan in either Federal Reserve notes or as a deposit credit on the books of the Federal Reserve bank. Against Federal Reserve notes the issuing bank is expected to keep a minimum reserve of 40 per cent in gold; against deposits, a minimum reserve of 35 per cent in gold or lawful money.

Our national and state banks, which own and largely

control the Federal Reserve banks, are compelled to keep their required reserves on deposit with the Federal Reserve banks. The cash reserves of the commercial banks, lodged with the Federal Reserve banks, become the basis of multiplied loans to the commercial or member banks and of multiplied deposits owed to those same members. But the deposits of the member banks on the books of the Federal Reserve banks are legal reserve for the member banks. When cash was transferred from the vaults of member banks to the Federal Reserve vaults, it ceased to be reserve for the member banks, and became reserve for the Federal Reserve banks, and the *deposit liabilities* of the Federal Reserve banks assumed the rôle of reserve for the member institutions. Such deposit liabilities are called reserve deposits. Commercial banks expand the credit supporting power of cash lying in their vaults; and bankers' banks, when the cash is transferred to their vaults, magnify this expansive power.

This magnified expansive power and the process of cash dilution to which it is traceable, will be seen in a clearer light if we refer directly to the consolidated and condensed balance sheet of the twelve Federal Reserve or regional banks, which we may properly regard as one great bank *of* branches.[1] The assets and liabilities in round numbers are as follows:

[1] We are justified in looking upon the twelve Federal Reserve banks as a unit in this connection because member banks are required to maintain all of their required reserves on deposit with the regional banks. *Intra*-district shifting of reserves involves only a transfer of credits on the books of the regional bank at the head of

Assets		*Liabilities*	
Loans	$3 billions	To Shareholders	$ .17 billions
Cash	2 "	Notes	3 "
Other Assets	1 "	Deposits	2 "
		Other Liabilities	.83 "
	$6 billions		$6 billions

If now a billion dollars were lodged by the member banks in the vaults of the Federal Reserve banks, the cash of the regional institutions would be raised from 2 to 3 billions and the deposits likewise from 2 billions to 3 billions, the ratio of cash to demand liabilities rising for the time from 40 per cent—2 to 5—to 50 per cent —3 to 6. That is, the Federal Reserve banks would have an idle reserve of 600 millions, if the 40 per cent reserve ratio was still adhered to, even after the member banks had been credited 1 billion,—an amount that would continue to be the actual foundation of deposits of ten billions on the books of member banks.

If the unused reserve was employed as support for additional issues of Federal Reserve notes, an expansion of 1.5 billions ($2\frac{1}{2} \times \$600{,}000{,}000$) would take up the excess in the reserves, and the transfer of the billion in cash from the commercial to the bankers' banks would result in a relatively slight expansion of loans and deposits of the commercial banks, through which the Federal Reserve notes tend to pass into circulation, those notes, fortunately, not being eligible for general use as *legal* reserve.

Nevertheless, the fact that Federal Reserve notes

the district; *inter*-district shifting of reserves, a transfer of credits from the books of one regional bank to the books of another.

cannot be used to satisfy the *legal* reserve requirements of national and some state banks, notably all New York State banks, is partially offset by another circumstance which has often been overlooked. National banks, in accordance with provisions of the Federal Reserve Act, *keep their legally required reserves with the Federal Reserve banks.* Against demand deposits Country banks are required there to maintain 7 per cent, Reserve City banks, 10 per cent and Central Reserve City banks, 13 per cent; all three classes, 3 per cent against time deposits. However, to the stipulated legally required reserves must be added whatever amount banking prudence and necessity compel member banks to keep actually on hand to meet day-to-day demands for cash. That such funds are called till money does not alter their essential character, and inasmuch as Federal Reserve notes are eligible for use and are very extensively used by member banks as till money, sight should not be lost of the fact that they also, to the extent that they are used as till money, serve to support manifold loans and deposits of member banks. Federal Reserve notes, therefore, have a multiplicative power of credit support, although clearly not so great as that of reserve deposits. This peculiar, partial character of the credit supporting power of Federal Reserve notes is indicated in diagram 4.

If surplus reserves of $600,000,000 in the vaults of the regional banks were there utilized wholly as a basis of new loans and deposits, an expansion of only 1.7+ billions would be possible, a 35 per cent reserve being required against deposits, but the case would be dif-

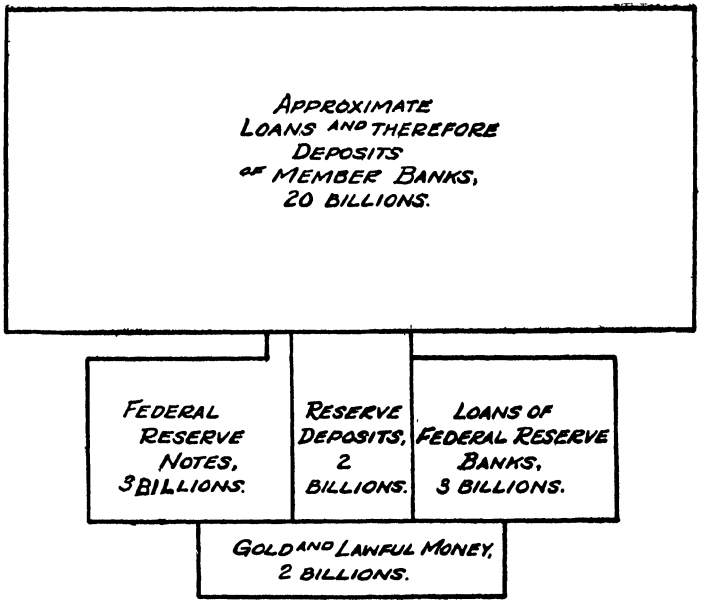


Diagram 4

Government deposits, $75,587,000, and "other deposits, including foreign Government credits," $95,366,000 (February 20, 1920) are not represented in diagram 4. These items combined are of relatively slight importance, being less than 10 per cent of "due to members-reserve account," $1,828,891,000 on the date mentioned. Simplicity and clarity also dictate the omission of Federal Reserve bank notes from the diagram. These notes, issued by the Federal Reserve banks, are of the same tenor as national bank notes; the amount outstanding, February 20, 1920, being $240,858,000 as against $2,977,124,000 of Federal Reserve notes.

Loans and deposits of member banks are represented in the diagram as equal although, chiefly on account of the swollen Federal Reserve note issues, there has been a strong tendency for loans to outstrip deposits.

ferent from that involving an expansion of notes because the new deposits, constituting legal reserve for member banks, would enable those member banks taken in the aggregate to expand their loans and deposits by approximately 10 times 1.7 billions. That is to say, if the maximum credit expansion were attained, on the basis of deposits, to the entire exclusion of notes, the billion dollars transferred from the member banks would be made to support not only 10 billions in loans antecedently supported, but an additional amount of 17 billions. Under those conditions a dollar in the vaults of the Federal Reserve banks would have approximately two and a half times as much credit supporting power as a dollar in the vaults of the member banks would have if the bankers' banks were nonexistent.

In brief, the degree or measure of cash dilution depends upon whether reef in the reserve sail is utilized in note- or deposit-expansion. At the end of five years of the Federal Reserve system, the notes and deposits stand in the ratio[1] of 3 to 2 approximately, as the simplified balance sheet indicates and as diagram 4 shows.

As diagram 4 indicates, the two billions of cash held by the Federal Reserve banks indirectly support twenty billions of deposits on the books of member banks and three billions of Federal Reserve notes in addition.

[1] Whether member banks take the proceeds of their loans or rediscounts at the Federal Reserve bank in notes or deposits depends upon whether the demands of the customers of the member banks are for notes or deposits.

Would member banks have the same volume of loans and deposits, 20 billions in round numbers, if the cash of national and state banks had not been gathered together in the vaults of the regional or bankers' banks where now it serves to support both notes and deposits? If the regional banks had not been established, a billion dollars of European gold coming, as it did, into our banks, would have set loan—and deposit—expansion in motion, prices would have risen, and the accompanying need and demand for additional hand to hand money would have drawn lawful money, in the absence of elastic note issues, from the banks into circulation. Such a withdrawal of lawful money from bank reserves to the channels of circulation would have checked and restricted expansion of credits on the books of the lending national and state banks. The centralization of reserves and the issue of elastic notes, have prevented the withdrawal of lawful money from commercial banks during a period of great loan and deposit expansion.

In response to customers' demands for additional hand to hand money, demands arising out of rising prices caused chiefly by previous loan and deposit expansion, member banks have obtained through borrowing, rediscounting, or otherwise and largely paid out over their own counters Federal Reserve notes to the amount of three billion dollars. Federal Reserve notes have thus through a monetary division of labor made it possible for lawful money to be utilized in its most efficient and inflationistic capacity. The Federal Reserve notes relieve lawful money of its declining function as a medium of exchange, allowing it

to render the higher service of bank reserves, in banks where reserves have a maximum of credit supporting power. Wherever Federal Reserve notes release lawful money in circulation for the higher work of bank reserves, wherever they prevent a depletion or loss of bank reserves during a period of rising prices or expanding business, and wherever they serve as till money in member banks and as reserves in non-member banks, —there they, too, carry a multiplicative power of credit expansion and support.

Maximum bank credit expansion under the influence of the Federal Reserve banks, then, would take place, *ceteris paribus*, if note issues were kept at a minimum while deposits of Federal Reserve banks were extended to a maximum, and a minimum of expansion would take place if note issues reached a maximum and deposits were kept at a minimum. The spread of deposit banking and the more and more widespread use of checks are circumstances, therefore, that work very powerfully in the direction of continued inflation.

Future Credit Expansion under the Federal Reserve System

Although surplus reserves in the Federal Reserve system have been reduced to comparatively small proportions it would be a mistake to believe that very substantial further expansion of loans and deposits within the system, including the member banks, is cut off as a possibility, even though no change is made in reserve requirements. It must not be lost sight of that a billion and a half dollars of lawful money—

chiefly gold certificates, silver certificates, and greenbacks—still circulate outside the vaults of the Federal Reserve banks as *potential* reserve. Through a substitution of Federal Reserve notes for lawful money, the latter may be obtained by the Federal Reserve banks and may become the legal reserve foundation of a manifold credit expansion in the years that are ahead.

Not only so; the Federal Reserve Board, clothed with controlling power over the classification of reserve cities, may by a simple ruling, give freer lending rein to member banks. Such action, already agitated, would require no legislative enactment, and we may in the future witness a further dilution of cash through a reclassification of cities. Such a reclassification or demotion of cities now classed as Reserve cities as well as those classified as Central Reserve cities would be the equivalent of an outright reduction in the reserve percentage required to be maintained with the Federal Reserve banks by their demoted members. If Buffalo, to take a single example, were to lose its designation as a Reserve city, Buffalo banks would be required to keep a reserve against demand deposits not of 10 per cent but of only 7 per cent.

The power of the Federal Reserve Board to permit a reduction of the note reserve below 40 per cent, with a graduated tax on the deficiency, and the power to suspend any reserve requirement for "a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days," —these powers are designed to meet extreme emergencies and require no comment.

The Rediscount Rate as a Factor in Credit Extension

Within the limits indicated the extension of the loans and resulting reserve deposits or Federal Reserve notes of the Federal Reserve system and hence the future extension of loans and deposits of our commercial banks will be determined in no small measure by the rates of rediscount enforced by the Federal Reserve banks under the guiding influence of the Federal Reserve Board. But this statement calls for explanation and amplification.

We have already observed (Chapter IV) that the banker exercises a regulative or corrective power over the ratio of reserves to deposits by increasing or curtailing loans. Where, however, he has access to a bankers' bank, notably one of the Federal Reserve banks, he may regulate and control his reserve-deposits ratio by borrowing or rediscounting. Whenever shortage of reserve exists or threatens, the banker may tap the lending power of the bankers' bank and there, through rediscounting or direct borrowing on the secured obligation of his own bank, obtain an addition to his reserves in the form of either a deposit credit on the books of the bankers' bank or of "money" that may be paid out to meet demands for cash at the paying teller's window.

Rediscounting and direct borrowing on secured obligations at the Federal Reserve banks have become very common as a means of replenishing member bank reserves, and the ease with which member banks have been able to borrow from the Federal Reserve banks has served clearly to mark off the

period since 1914 as a new era in bank operation.

The following table gives an itemized account of the advances made by the twelve regional banks as of January 23, 1920: [1]

Bills discounted secured by Government war obligations	$1,386,348,000
All other bills discounted	767,110,000
Bills bought in open market	575,789,000
United States Government bonds	27,036,000
United States Victory notes	64,000
United States certificates of indebtedness	276,765

It is well to keep in mind that reserve acquisitions obtained through rediscounting or borrowing constitute a more ample source of credit extension than do reserve accretions obtained from depositors: the borrowing bank keeps no reserve against the obligation to a lending institution, whereas, it must keep or withhold a reserve against an obligation arising out of the deposit of funds by a customer. How much a borrowing bank can lend on the basis of a reserve acquisition obtained through borrowing is ascertainable by the application of the formula, $x = \frac{c}{kr+1-k}$, already developed, page 54. The application of this formula (in which x stands for the amount that an individual bank can lend on the basis of a reserve acquisition or surplus reserve; c, for the surplus reserve; k, for the derivative deposit-loan ratio; and r, for the reserve-deposits ratio) indicates that a typical bank can increase its loans by approximately $1.22 for every dollar bor-

[1] Federal Reserve Bulletin, Vol. 6, No. 2, February, 1920, p. 196.

rowed. A rate of *rediscount*, therefore, that equals or exceeds the rate of *discount* tends strongly to check borrowing by the commercial banks. This is true, even if the commercial banks are borrowing freely and simultaneously. Under those circumstances an individual member bank would be able to add approximately ten times as much to loans as the amount borrowed at the Federal Reserve bank, but most of the additional lending power would be traceable to the loan expansion of *other* member banks, and only the amount arrived at by the application of the formula would be due to funds borrowed from the bankers' bank.

If the Mad River National Bank of Springfield, Ohio, refrains from rediscounting while all other banks are so doing, its primary deposits will tend to rise in response to the fact that its customers receive a greater volume of checks than previously, and in turn, place those checks on deposit, thereby increasing the lending power of their bank, the Mad River National. If that bank borrowed $100,000 *en bloc* from the Federal Reserve Bank of Cleveland the additional or surplus reserve thereby obtained would enable the Springfield institution to add approximately $122,000 to its loans, if its cash-deposits ratio were 10 per cent and its customers on the average left 20 per cent of their loans on deposit. Of the $122,000 loaned, approximately $97,600 (80 per cent) would be drawn against by check, the checks being sent to creditors of the borrowers. The recipients of the checks, placing them on deposit at their own banks, would give those banks a claim on the reserve of the Mad River National. In time the

borrowed funds would become distributed widely through the banking system as the residualized foundation of manifold loans and deposits. In that process, however, the Mad River National Bank would retain only a small proportion, $100,000—$97,600 or $2,400, as reserve against derivative deposits of approximately $24,000, the last amount being 20 per cent of the $122,000 extended in loans.

It is clear that the profitableness of rediscounting depends upon the difference between the rate of discount that the borrower pays his bank and the rate of rediscount that his bank pays the bankers' bank. As this page is written, the rate of rediscount for commercial paper at the Federal Reserve Bank of New York is being raised from 6 to 7 per cent. The resulting tendency will be (1) to make rediscounting less profitable to member banks, (2) to cause the rates paid by borrowers to rise, and (3) to curtail loans and therefore deposits of the borrowing banks. We may add that since deposits are purchasing power, a rise in the rate of rediscount, which tends to curtail loans and deposits, tends to depress general prices, to reduce profits and to check business expansion. Conversely, a reduction in the rate of rediscount tends to increase loans and deposits and to cause prices to rise. Rising prices result in rising profits, and greater profits are an incentive to extend plant, equipment, and scale of operations. If labor and capital goods were not fully employed at the time, a reduction in the rate of rediscount might set latent productive forces free resulting in an increase in product and in the volume of trade. If labor and capital goods were fully employed, the ex-

pansion of loans and deposits resulting from a reduction in the rediscount rate would tend to be absorbed in higher prices for an unchanged volume of exchangeable goods. A change in the rate of rediscount tends to be reflected in changes in the price level and, generally, in the physical volume of trade, a rise in the rediscount rate curtailing trade and industry and a reduction having the opposite effect.[1]

But the controlling influence of the rate of rediscount of the Federal Reserve banks is founded on the close relation of that rate to the rate of discount of the commercial or member banks.

If the traditional theory of bank credit were valid, the rate of rediscount would have to be raised to a point several times as high as the rate current in the market before rediscounting would become unprofitable. If the traditional theory were valid, high rediscount rates—up to 40 or 50 per cent—would have only a moral influence in curtailing loans and deposits. If we accept the premises of the old theory of bank credit the conclusion stated is unavoidable. Thus Henry Hazlitt of the Mechanics and Metals National Bank of New York, writing in *Trust Companies* says:

[1] To the extent that a rise in the rediscount rate and the consequent reduction in bank loans and deposits might curtail production and, *after a lapse of time*, the physical volume of trade, the tendency toward a reduction in general prices would be retarded. If, on the contrary, a rise in the rate of rediscount and consequently in the rate of interest or discount, impelled holders of goods and securities to throw their holdings on the market because of the increased cost of requisite borrowed funds, the accelerated movement of securities, merchandise, and wares, that is, the increased physical volume of trade, would accentuate, *for the time being*, the falling price level.

"A high discount rate for the Reserve banks is mainly important for its moral effect. It does not make it unprofitable for the banks to rediscount. A bank in New York City may rediscount $13,000 of commercial bills and pay 6 per cent for so doing, but it thereby obtains a credit of approximately $13,000 from the Reserve bank, on which it is able to lend $100,000 at 6 per cent or more to individuals. The rediscount rate would have to be raised to more than 40 per cent to make such a transaction actually unprofitable, and of course such a rate is ridiculous. If the moral effect of a reasonably high rediscount rate is not great enough to stop the expansion of credit, then the reserve banks should use freely their powers of rationing and allocation."[1]

Happily, the time-worn theory of bank credit, upon which rests the contention embodied in the quotation given above, is erroneous and the rediscount rate of the Federal Reserve banks is available and effective as a regulator of bank loans and deposits, of business expansion and contraction and, within limits, of general prices.

Commercial Banks as Bankers' Banks

Having perceived the way in which bankers' banks dilute cash, and the way in which the operation of our regional institutions affect the loans and deposits of member banks, we need only to be reminded that many of our national and state banks served as bankers' banks

[1] Henry Hazlitt, *Why the United States Must Protect Its Gold Standard*, Trust Companies, Vol. XXX, No. 2, February, 1920, p. 154.

as well as commercial lending agencies before the establishment of the Federal Reserve system in 1914 and that many still so serve, but on a relatively restricted scale. The outstanding circumstance that distinguishes the work of the Federal Reserve banks from that of our national and state institutions serving in the capacity of bankers' banks is that under the existing regional system members are legally *compelled* to keep *all* of their required reserves as deposits with the regional banks, whereas before 1914 it was not mandatory but merely permissible to keep *a fraction* of the required reserves on deposit with other institutions. The Federal Reserve Act has not only lowered the reserve requirements of national banks; it has increased the quantity of our reserves at the expense of quality. The pronounced dilution or watering of reserves results from an extreme extension of the principle of bankers' banking under the Federal Reserve system, wherein all deposit liabilities of the regional institutions serve—*and those liabilities alone may serve*—as the legally required reserves of all national and many state banks. The compulsory concentration of reserves under the operation of the Federal Reserve Act was a step requisite to an ideal banking system, but fruitful of inflation—an inflation that might have been held in check by a regulation of reserve requirements.[1]

[1] If there is any weakness in the Federal Reserve system in this connection, it is to be found in the too great reduction of reserve requirements and not in the much needed centralization of reserves.

For an account of the weaknesses of our banking system prior to 1914 see the writer's *Readings in Money and Banking* (Macmillan), 1916, Chapter XXX.

PART II

QUALITATIVE ASPECTS OF BANK CREDIT

CHAPTER VII

Recent Changes in Our Bank Credit Arrangements

The principal changes in our bank credit arrangements since the Civil War and more especially during the last twenty-five years, relate to the form of the bank borrower's obligation, the development of the note brokerage business, the rise of the bank credit department, the rise and expansion of the new business department, and the establishment and operation of the Federal Reserve system. An account of some of the more important aspects of these changes, following the order just given, may well serve as an introduction to a somewhat detailed analysis of the factors underlying and affecting the quality or soundness of bank advances.

Evolution in the Form of the Borrower's Obligation

The form of the instrument of our bank loans has undergone very appreciable change during the last half century. That change, however, has been far from uniform in time and place and defies treatment that is at once concise and definitive. An exhaustive discussion of this aspect of our subject, which would be in itself a fit topic for a volume, must give way to an account of only the main modifications and developments in the form of our banking paper.

One of the outstanding features of our banking practice during the last half century or more is the change of emphasis placed on the personal standing of the borrower. Fifty or sixty years ago single name paper was scarcely known. Banks refused to make advances on the security afforded by the borrower's signature alone and insisted upon one or more endorsers. The banker who loaned on single name paper without additional security was regarded as the reverse of conservative, if not positively reckless. In the country districts, where borrowed money was invested largely in fixed property and where the money was loaned on endorsed accommodation paper more extensively than in the large centers, borrowers sometimes became so involved as endorsers for one another that there resulted a situation, which, when pressure was brought to bear for payment, resembled a row of bricks standing on end so that if one were knocked down, it would fall on another until all were bowled over.[1]

The use of endorsed paper led to endorsing for accommodation. When a borrower had no more customers' notes he applied to one of his friends to exchange his note for his own and had it discounted at his bank. The friend did the same thing in his (a different) bank. Whenever one of these accommodation endorsers got into trouble the other was affected adversely, and heavy losses occurred yearly by what was called two-name paper.[2] Endorsed accommodation

[1] James B. Forgan, *Evolution in Banking Thought during the Past Generation*, Bulletin, National Association of Credit Men, Vol. XIX, p. 935.

[2] E. Naumburg, Annalist, Vol. III, No. 62, March 23, 1914, p. 361.

paper, with a heavy sprinkling of endorsed trade paper and acceptances, bulked large in bankers' receivables before the disturbing effects of the Civil War were felt.

The evolution from this system of endorsed accommodation paper and endorsed trade paper, *i. e.*, notes given by buyer to seller and endorsed by the latter, was to discount chiefly double name commercial paper representing *bona fide* business transactions and given for value received in merchandise. Under this system, which reached its culmination about 1880 accommodation paper was regarded as dangerous and was diligently eschewed. But in spite of the best efforts of the bankers, accommodation paper continued to be floated. Notes originally given for merchandise purchased became after several renewals the worst kind of accommodation paper because they enabled the borrowing customers of a bank to carry along delinquent debtors indefinitely.[1]

Then developed in trade the present discount system under which merchandise or manufactured wares are sold subject to a discount for cash or for a short term payment, goods being billed on open account. In order to take advantage of the liberal discounts offered for cash or early payment, merchants and manufacturers were under a strong incentive to borrow, and did borrow, from at first the bolder and later from even the most conservative bankers, on unsecured single name paper. The theory is that business concerns should buy their merchandise or raw materials as nearly for cash as possible and borrow directly or in-

[1] *Cf.* James B. Forgan, *op. cit.*, p. 936.

directly from banks to enable them to do so.[1] This system developed until it has become so general a practice that we may profitably note the forces underlying its development.

The Civil War with the greenbacks depreciated and fluctuating in value, and the demand for commodities outrunning supply, induced a marked shortening of the credit period, to thirty or even ten days. The system thus inaugurated became a settled trade custom in connection with which manufacturers and distributers began about 1880 to offer large discounts for cash payment. Competition in the eighties among our rapidly growing producing and marketing agencies resulted in the practice of selling through traveling salesmen and by sample. The buyer no longer found it desirable to visit the seller's store and to purchase from a stock of goods prepared in advance, and the old condition of "caveat emptor" gave way to the doctrine of implied warranties. In other words the risk and responsibility of the delivery was laid upon the seller instead of on the buyer, the buyer no longer consenting to fixing the price of the merchandise so firmly as to preclude the possibility of claims in deduction from the account. The doctrine of implied warranties and the open account came forward hand in hand. Once the practice of selling on open account was established, it was natural for sellers to stimulate promptness by offering liberal cash discounts. The introduction of discounts for cash, which took place in the early eighties, when growing competition among sellers tended to lengthen the credit period, impelled buyers to borrow

[1] *Ibid.*, p. 936.

directly from their banks in order to take advantage of the discounts offered.[1]

The system of borrowing by the buyer on his own responsibility, which was a consequence of the introduction of cash discounts, has in the minds of many proved superior to the old methods of endorsed paper, which involved so many borrowers in complications and often led to the hiding of assets by endorsers to avoid the payment of obligations from which they had received no benefit.

Although the introduction of the practice of financing trade by single name paper has been referred to as occurring in the eighties of the last century, it would be wrong to suppose that single name paper had not been employed here and there previously. Shortly after the crisis of 1873 banks in New York City began to discount single name paper for their customers, even though such notes had been sold to banks by brokers much earlier. The late president of the Importers and Traders Bank of New York, Mr. Buell, is frequently referred to as the pioneer in this field. He showed his customers the advantage of borrowing on their general credit standing in order to obtain cash prices on their purchases and thus show a margin of profit on their discount transactions.[2]

The first detailed classification of the loans of New York banks contained in the Reports of the Comptroller of the Currency is for the year 1874 and shows

[1] Edward D. Page, Annalist, March 16, 1914, Vol. III, No. 61, pp. 324, 325.

[2] J. J. Klein, *Commercial Importance of Single Name Paper*, Annalist, Vol. III, No. 62, March 23, 1914, p. 361.

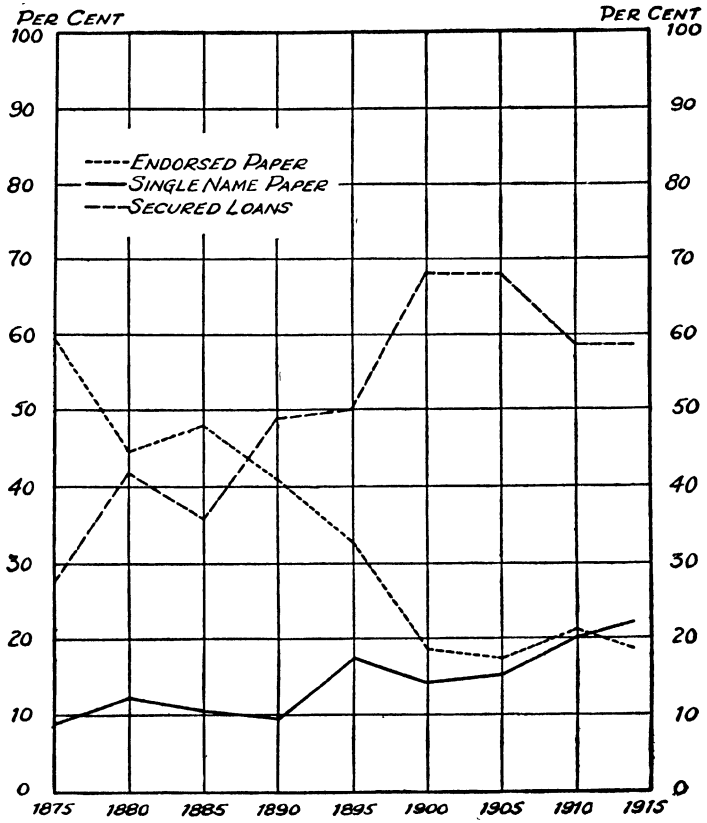


Diagram 5

that single name paper in that year constituted 9.8 per cent of the total, and endorsed paper, 57.8 per cent of the total. The relative importance of the main kinds of loans of the national banks of New York, 1875–1914, is shown by diagram 5, and of the national banks of the entire country, for the period 1880–1914, by dia-

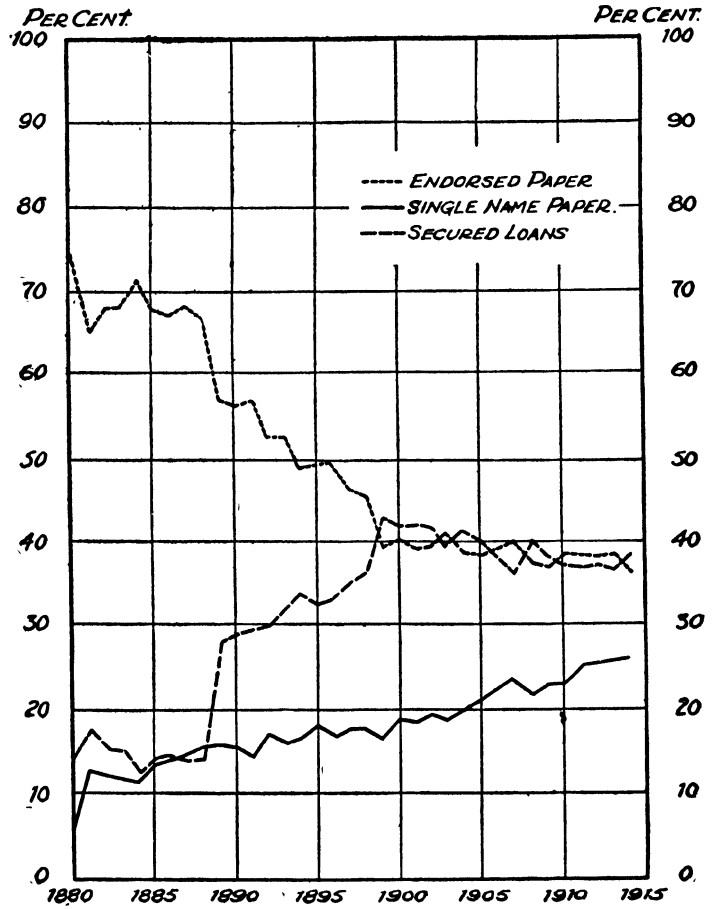


Diagram 6

gram 6.[1] Changes in the classification of loans after 1914 render the extension of the curves beyond that year impracticable.

[1] In drawing the chart of loans of all national banks it has been

State banks and trust companies show a strikingly smaller percentage of both single name and of endorsed paper than do national banks. The ratio of single name paper to total loans of state banks and trust companies in 1910 was only a scant 10 per cent, and endorsed paper constituted approximately 15 per cent, of the total. Loans secured by collateral in the case of state banks and trust companies were 29 per cent of the total, whereas the same class of loans made by national banks was 36 per cent of the total. Loans on real estate combined with mortgages owned by state banks and trust companies, on the other hand, constituted 38.1 per cent of their total loans.[1] The paper held by state banks and trust companies is even less strictly "commercial" and liquid in its nature than that held by national banks.

Closely related to the evolution of the form of the bank borrower's obligation is the rise and development of note brokerage as a system of buying and selling both secured and unsecured paper,—but payable al-

found advisable, on account of classification changes made in the Reports of the Comptroller of the Currency, to estimate the amount of endorsed paper for the period 1880 to 1888. The margin of error, however, is almost negligibly small. For the period 1891 to 1914 the item "on demand, paper with one or more individual or firm names" was divided arbitrarily and equally between endorsed paper and single name paper.

In the classification of loans of the national banks of New York City 1875 to 1890, loans classified as "payable in gold" and "all other loans," together amounting to approximately 4 per cent of the total, were discarded. For the period, 1891 to 1914, the item "on demand, paper with one or more individual or firm names" was divided equally as above between endorsed and single name paper.

[1] Report of the Comptroller of the Currency, 1910, p. 55.

ways on time, never on demand. As the following pages will show, the beginnings of the note brokerage system reached back far into the last century.

The Growth of Note Brokerage

The development of the work of note brokerage or commercial paper houses in the United States has proceeded a long way without having attracted much serious attention. Handling wares of little bulk in proportion to value, occupying relatively small and inconspicuous quarters, and seldom attempting to secure publicity through the medium of advertising, note brokerage concerns have come in large measure unobserved to occupy an important and unique place in our credit organization.

For at least twenty-five years before the outbreak of the Civil War a small class of dealers handled trade acceptances and receivables chiefly on a commission basis. Mr. Henry Clews, whose banking and brokerage house was the first in New York City to introduce the practice of buying these obligations outright has given an account of the work of the ante-bellum dealers that is so pertinent and illuminating as to deserve reproduction.

> At the time I visited Washington [in 1861] my firm was more largely engaged in dealing in mercantile paper than any other branch of Wall Street business.
>
> I had inaugurated the system at the time of my advent to the "Street" of buying merchants' acceptances and receivables out and out, the rate being governed by the prevailing ruling rate for money, with the usual commission added.

It was by this method that my firm soon became the largest dealers in mercantile paper, which business had formerly been controlled by two other firms for at least a quarter of a century, and whose old fogy methods were by my innovations easily eclipsed.

The merchants at that time would go to these discount firms and leave their receivables, bearing their endorsements, on sale there, and only when sold by piecemeal could they obtain the avails thereof.

The more expeditious plan that I adopted, which was to give these negotiators a check at sight, seemed generally to merit their approbation, and enabled me to command the situation in that line of business, very much to the chagrin of my competitors.

In this way my firm had accumulated about five hundred thousand dollars in notes, which were hypothecated with various city and country banks.

After coming to the conclusion . . . in regard to the certainty of a . . . prolonged and desperate war, I made quick steps back to New York to dispose of my paper. I went vigorously to work, and succeeded in unloading all but ten thousand dollars of short time notes made by Lane, Boyce & Co., and a note of $500 of Edward Lambert & Co.

I had no sooner accomplished this very desirable work of shifting my burden, and distributing it in a more equable manner on the shoulders of others, but at higher rates than I paid, than in less than a week after my return from Washington the exciting news arrived of the firing of the first hostile gun at Fort Sumter.

The announcement of this overt act of war spread like wildfire, and the wildest scenes of excitement and consternation were witnessed in Wall Street and throughout the entire business community. The whole country was panic stricken in an instant. . . .

The two firms whose paper I was unable to dispose of were about the first to fail, and before the maturity of any of the balance of the paper which I had successfully negotiated both the drawers and endorsers thereon, without an exception, all collapsed.[1]

The financial and trade disturbances of the Civil War did not end with its termination and the commercial paper business was of slender proportions during the period of the inconvertible greenback, 1862–1878.

During the greenback period fluctuations in the value of irredeemable currency made the extension of credit for any considerable length of time extremely risky. The approach of the resumption of specie payments was the signal for resuming the practice of selling goods on long time, and as the volume of notes and accounts receivable grew under the influence of lengthening credit terms, business concerns were impelled either to borrow from banks or sell their own paper through note brokers.

During the eighties great progress occurred in the development of note brokerage. Before the close of the decade of the eighties paper dealers doing an extensive business had been established as far west as Chicago, Milwaukee, Kansas City, St. Louis, St. Paul, and Minneapolis. Over thirty millions of paper was sold by one western house previously to 1887, before a single default in payment occurred.[2]

Prior to 1895 or 1900 handling paper on consign-

[1] Henry Clews, *Fifty Years in Wall Street*, Irving Publishing Company, 1908, pp. 78, 79.

[2] W. H. Baker and H. N. Kingman, *Commercial Paper*, Proceedings, American Bankers' Association, 1887, pp. 46, 47.

ment was very common. Since that time the practice has fallen increasingly into disfavor. The volume of paper handled on a commission basis has dwindled and almost disappeared. Commercial paper houses now buy paper outright almost invariably, and to the extent that they hold it, whether through choice or necessity, perform a banking function. Dealers in paper now have a livelier sense of responsibility for its soundness and liquidity than when they worked for a commission.

The intersectional activity of the paper dealers was slow in developing. As late as 1887 eastern banking funds were still confined to investment in eastern paper, even though the dealers of the West were floating trade paper that proved attractive to the banks of that section at a time when accommodation paper was growing rapidly in volume in the East. Eastern banks preferred "accommodation" paper to the receivables of the expanding West.[1]

The year 1890 marks in a rough way the breaking down of the barrier which had previously prevented eastern capital from flowing to the West through the channels afforded by the note brokers. Just at the time when there seemed to be an opportunity for bankers in the West, the Iowa group of states, to dispose of idle funds at profitable rates, the "festive" note broker made his presence felt in banking circles, disturbing with his eastern capital the harmonious relations between banker and borrower.[2] It was natural

[1] *Op. cit.*, p. 47.

[2] J. K. Deming, *Modern Methods of Soliciting Business*, Proceedings, Sixth Annual Meeting, Iowa Bankers' Association, 1892, p. 21.

that the first brokerage connections established between the East and the West should have resulted in a flow of capital westward.

As potential borrowers from banks in any particular locality sold their paper more and more through note brokers, surplus funds in that locality accumulated, and gave birth there to a demand for broker's paper. The more paper the brokers obtained through solicitation or otherwise, the greater became the buying demand of the banks. The situation was and remains a peculiar one and goes far to explain the rapid spread of the note brokerage system.

Although the volume of paper placed by the dealers had reached large proportions before 1900, the growth of the business both in point of volume and territorial ramifications since that date has overshadowed its previous development. The following tabular statement throws light on the expansion of the operations of paper houses into sections whose economic development has occurred largely in our own time, and shows how in certain representative localities the solicitation of the buying departments of note brokerage concerns paved the way for the paper salesmen in the same localities.

City	*Approximate date of first sale of paper by local concerns to brokers*	*Approximate date of first sale of paper by brokers to local banks*
Akron, Ohio	1902	1906
Columbus, Ohio	1907	1912
Joliet, Illinois	1908	——
Dallas, Texas	1910	1910
Portland, Oregon	1906	1908
Spokane, Washington	1911	1911

The *a priori* notion that the purchase of paper by brokers must have created a demand for paper on the part of banks whose borrowing customers were induced to dispose of their obligations through brokers, tallies with the contention, based in part on the table given, that the market for the wares of the paper dealer was the inevitable product of his own buying effort and power. There were of course many exceptions. Banks in localities having a widely diversified commercial or industrial development with few or no concerns of sufficient size and importance to borrow through brokers might naturally buy broker's paper long before customers of local banks were led to place paper in the open market. Banks in thrifty towns in the East may have found a natural outlet for their surplus funds in the purchase of broker's paper, even though local borrowing concerns never utilized the services of the note broker.

In some instances local borrowing demands were in excess of the local supply of short time funds and borrowers placed paper in the open market long before the banks were in condition to buy outside paper. St. Joseph, Missouri, affords an illustration. The jobbing houses located there sold their paper in the Eastern market for many years before the St. Joseph banks began, about 1900, to purchase commercial paper offered by brokers. The bank credit demands of the jobbing business of St. Joseph have always been in excess of the lending facilities of the local banks, and jobbers using a great deal of money have secured funds through the sale of notes placed with brokers, and have also opened accounts in New York and other cities in order to obtain larger accommodation.

The situation in the country as a whole was, nevertheless, one where the solicitation of paper by the brokers had almost unique results: their success in weaning customers away from banks was productive of a corresponding demand for the very paper acquired by solicitation.

The extraordinary growth in the work of the commercial paper houses during the last quarter century has been accomplished without a corresponding increase in the number of houses. The tendency has been for the stronger houses to build up an extensive system of branches and correspondents covering wide territory, as opposed to extension through an increase in the number of individual brokerage concerns. In some cases the branch principle has developed to a point where the branches participate in buying, and there is a general trend toward concentration of the entire business in a few hands. Experience has led some houses maintaining few branches, or none at all, to favor distribution through correspondents rather than through branches.

Boston has at present six local houses and four or five branches of concerns located in other cities. New York has a total of twenty-three houses, many of which, as elsewhere, are not engaged exclusively in the purchase and sale of commercial paper, but handle stocks, bonds, foreign exchange, etc.

The modern commercial paper house is a somewhat complex business organization. Buying, credit, and selling departments contribute to efficiency and soundness of operation. The buying department is charged with finding desirable concerns from which the house

may buy, but it is only after the credit department, employing methods and having interests similar to those of the bank credit department, has approved an advance of funds, that the paper is bought. The selling department sells both "by list" and through personal solicitation. A large proportion of the paper handled is now sold by traveling representatives, who work in regularly assigned territory.

The depleted sales-forces of war-time had the volume of their sales affected adversely by the demands of the government upon the loanable funds of the banks, and many of the salesmen might have retired from the field but for the rediscount facilities afforded by the Federal Reserve system, which have tended to increase the amount of money available for the purchase of the note broker's offering.

Seasonal Demands for Funds in Relation to the Growth of Note Brokerage

The rise of commercial paper houses has an intimate connection with the seasonal character of the demand for funds in large sections of the country. As regularly as seed time and harvest occurred bankers in the agricultural sections of the country found it desirable to be in a position to withdraw or secure funds from other than local sources in order to meet the local demand. In other words, it was the business and duty of the banks in the agricultural sections so to time their loans and so to make their investments of surplus funds as to meet these recurring seasonal demands with certainty and without disarrangement of local credits. No form of investment filled the requirements of the

case so well as selected notes of distant concerns. Twenty years ago when loans were almost entirely local, surplus funds of country banks were invested largely in high class bonds and similar securities, which were held with the idea of sale when the local demand for funds outran the local supply. A bank holding such securities, however, had no disposition to sell them until money became scarce. But it was at just such times that the security market became unfavorable and restricted. Banks, having found the extensive holding of securities for such purposes unprofitable and undesirable, invested their surplus funds more and more in paper offered by note brokerage houses. The demands upon commercial banks which necessitated their carrying increasingly large amounts of loans the payment of which could be counted upon with certainty was long one of the chief sustaining forces of the note brokerage business.[1]

Independent Banking and the Rise of Note Brokerage

The growth of the note brokerage business and the prominent rôle now played by the note broker as an intermediary between banks and borrowers in the United States are closely related also to our system of independent banks without branches. American banks having loanable funds in excess of local demands found it natural and profitable to purchase the paper of borrowers in other communities where local banks were unable to meet the demands of their customers. This

[1] *Cf.* Jos. T. Talbert, *Commercial Paper*, Proceedings, Nineteenth Annual Convention, Minnesota Bankers' Association, 1908, pp. 42, 44.

persistent disparity between the lending power of local banks and the effective demand for bank credit has constituted the note brokers' opportunity, and the brokerage houses have been keenly responsive in affording facilities for putting banks having surplus funds in touch with distant borrowers in need of short time capital. Had we developed a system of branch banks the supply of bank credit and the demand for funds would have been equated without any needed intervention of other agencies. The branch banking system as seen in England, France, Germany and, even more strikingly, in Scotland and Canada, not only furnishes the mechanism for connecting communities widely different in their credit needs but also is capable, by reason of the large resources of the individual banks, of meeting the demands of heavy borrowers, leaving thereby no place for the activity of paper dealers.

Commercial paper houses as intermediaries between banks and borrowers and working as an adjunct to our banking system promote the flow of funds from one point or section where the demand is slight to other places where the need is pressing, distributing loanable funds in a manner analogous to that of a system of branch banks.

There is, however, one important point of difference. Branch banking so equates demand and supply that every part or unit of the system bears its proper share of strain when strain comes. The note brokerage system, operating as an adjunct of independent banks, fails thus to equalize the pressure or strain. Under our system of note brokerage and independent banking those banks holding a minimum of local loans and a

maximum of broker's paper are relieved of strain in a stringency, while others with less paper and heavier local loans meet the demands of their borrowers with less ease. The branch banking system may be likened to a system of reservoirs with inter-connecting pipes always ample and unobstructed; whereas the note brokerage system, while always constituting channels for the inter-flow of short time capital from section to section, fails to function efficiently during periods of tight money and crisis. Then the flow of the currents of short time funds becomes impeded and disturbed.

The eight Scotch banks with their branches numbering approximately thirteen hundred, and the nineteen chartered banks of Canada with their thirty-five hundred branches serve adequately as collectors of cash and distributers of credit. The paper dealer is of no importance in the distribution of credit in France, and plays only a negligible part in Germany. The English bill brokers and discount houses perform a function similar to that of our note brokers, but are concerned pretty largely with bills used to finance international transactions. Wherever branch banking develops widely the work of note brokers is excluded as supplementary and unnecessary. There is, on the contrary, a natural fitness between the note broker and independent local banking. The service of our own note brokers is not supplementary to that of the banks, but complementary and economically justifiable.

The New Attitude of Bankers toward Broker's Paper

The attitude of our bankers toward broker's paper has undergone a radical change since the note broker

first came prominently forward with his wares twenty-five years ago. Previously to the panic of 1907, which subjected commercial paper marketed by the brokerage houses to a crucial test, bankers were inclined to shake their heads. The crisis of 1907 and the events of 1914, however, demonstrated strikingly the convertibility of broker's paper, and bankers have been increasingly friendly to it. Probably a large majority of our banks as measured by resources now resort to the commercial paper houses with much regularity, and many continually, in order profitably to utilize idle funds, to enhance the convertibility of their loans, and to scatter their risks beyond local range.

The Rise of the Credit Department

The credit department of a bank is one of prime importance. It is the clearing-house for credit information, the headquarters for analysis of credit risks, a storehouse of facts relating to borrowers of the funds of a bank. Men in charge of the department are watch-dogs of the bank's loans and the guardians of the investments made for correspondents. "The department must be manned by our most faithful, reliable, intelligent, tactful men, who must be capable of infinite pains, of inexhaustible patience, and of absolute loyalty. Their ears and eyes must be open to every contingency that no sign may go unheeded. They are compelled to walk in the ruts of routine and yet be pathfinders constantly. No man who works mechanically will develop into a successful credit man. The credit department should have an equipment com-

mensurate with its importance. It should be the inner chamber in all respects. . . . Its mechanism of blanks, files, vaults and office fixtures should be perfectly adapted to its service, and every means that ingenuity can devise should be utilized to assist its work."[1]

A high state of development of the credit department has been reached chiefly in our leading cities, but with the growth of commercial and industrial centers credit departments are being organized in smaller and smaller places. Many country banks keep elaborate credit files without maintaining a credit department as a distinct unit in their organization. The ordinary credit system is elastic and forms multiply as needs expand until facts may be easily gathered from many sources, summarized and digested for ready use.

The credit department of the metropolitan bank may utilize the services of upwards of a hundred persons. Some of them devote their time to indexing and filing information, while others do nothing but keep the folders in proper shape, with the paper fastened into the folder so that it may be handled and read like a book. Investigators who are employed to gather information from local houses in specific lines of business assigned to them develop into specialists and become repositories of facts and gossip for the whole trade. The results of their work are turned in to members of the office force who have been engaged on other phases of the same investigations. The whole is then digested

[1] J. G. Cannon, *Bank Credits*, Bankers' Magazine (New York), Vol. LXX, May, 1905, p. 587.

for the use of the bank or dictated as a letter to an inquiring correspondent, as the case may be.[1]

The First Phase of the Development of Credit Research

The establishment of credit departments in American banking institutions dates from about 1890. The exact date of the establishment of the first department as a distinct entity in the work of a bank is not known to the writer but it took place somewhat previously to 1892. On November 17, 1892, Mr. James G. Cannon delivered an address on "Bank Credits" at Drexel Institute, Philadelphia,—probably the first *practical* discussion of the subject—in which he stated that there were then not more than a half dozen credit departments in as many banks in the United States.

Mr. E. S. Lacey testified also in 1892 with reference to the rise of the credit department. He pointed out that large city banks were then regarded as not abreast of the times which did not possess "complete credit bureaus." Time and money were being spent freely and increasingly "by progressive institutions in our larger cities" with results demonstrating that no expenditure brought larger returns.[2]

Mr. Cannon was an earnest advocate of the advantages of a credit department in the work of a bank and was very active and effective in spreading his knowl-

[1] Freas Brown Snider, *The Development of the Credit Department of the Bank*, Bulletin, National Association of Credit Men, Vol. XIX, p. 948.

[2] E. S. Lacey, *Some Phases of Modern Banking*, Proceedings, Second Annual Convention Bankers' Association of the State of Illinois, 1892, p. 49.

edge and enthusiasm. The subject of bank credits was discussed before many state bankers associations during the mid- and late nineties, and the close of the last century witnessed the successful operation of a growing, if not large, number of well organized credit departments. The Fourth National Bank of New York, of which Mr. Cannon was for many years vice-president, and which was later absorbed by the Mechanics and Metals National Bank, was the first, it appears, to establish such a department. The Chase National Bank and the National Park Bank were also pioneers, followed by the National City Bank in 1898, the National Bank of Commerce about 1900 and the First National Bank of New York two years later. The movement seems to have had its inception in New York. That it did not acquire extraordinary momentum during the last decade of the last century is attested by the fact that such leading Boston banks as the National Shawmut and the First National Bank of Boston did not institute credit departments until 1903. Several leading banks in Philadelphia established regular and well equipped departments in the opening years of the present century.

Coincident with the rise of the credit department was the agitation carried on concerning the rendering of signed statements of condition by borrowers. The executive committee of the New York State Bankers' Association adopted resolutions recommending to its members "that they request borrowers of money from their respective institutions to give them written statements over their signatures of their assets and liabilities, in such form as the committee on uniform

statements of the various groups might recommend." Nearly all of the groups of the New York State Bankers' Association adopted uniform statement blanks and the example thus set was followed by many associations in other states.[1]

In 1898 the National Association of Credit Men, even then a powerful organization of nearly three thousand members, adopted, after a year's investigation of the subject, uniform statement blanks which were widely employed from the outset.[2] Only a year later the American Bankers Association, in a convention assembled at Cleveland, adopted a uniform property statement blank to be supplied to members. As if to place the full stamp of its approval on credit departments for banks, it instructed its secretary to set up in his office a model department, and to furnish members information in regard to the working of the same.

These efforts constitute what may be called the first phase of the development of credit research. The close of the last century witnessed firm foundations laid and conditions that were highly favorable to the extension of the work of careful investigation of borrowing concerns and systematic recording of the information secured.

The Development of the Credit Department since 1900

Since 1900 there has been a steady and enormous growth in the number of credit departments in banks, in the volume of their work, and in the thoroughgoing

[1] J. G. Cannon, *Bank Credits*, Bankers' Magazine (New York), May, 1905, Vol. LXX, p. 586.

[2] *Ibid.*

and really scientific character of the work of investigation. The way in which the importance of adequate and systematically recorded credit information has been recognized geographically and chronologically since 1900 may be made plain by the following tabular statement:

Name of Bank	*Year When Credit Department Was Recognized as a Distinct Unit in the Bank's Organization*
Corn Exchange National, Chicago	1900
First National, Denver, Col.	1903
Tootle-Lacy National, St. Joseph, Mo.	1904*
National Bank of Commerce, St. Louis	1905
Whitney-Central National, New Orleans	1906*
First National, San Francisco	1907
Fourth National, Atlanta, Ga.	1908
Southwest National Bank of Commerce, Kansas City, Mo.	1909
Merchants-Mechanics First National, Baltimore, Md.	1910
Seattle National Bank, Seattle	1910
Mississippi Valley Trust Company, St. Louis	1911
United States National, Portland, Ore.	1912
Lowry National Bank, Atlanta, Ga.	1914
National Reserve Bank of Kansas City	1915
Atlantic National of Jacksonville, Fla.	1917

The period before 1900 was essentially one of pioneering. Since that date the frontier of the advancing movement has disappeared, and we may now expect an intensive development of the credit department and its methods throughout the entire country.

* Date is approximate.

The Underlying Forces

The conditions or forces that underlay the rise and development of the bank credit department have been numerous. First, perhaps, in point of time, was a gradual change of method employed in the buying and selling of commercial paper. Borrowers were discovering that it was disadvantageous and frequently impracticable to confine themselves to one bank or to one place. Merchants and manufacturers went away from home to borrow and bankers went away from home to procure investments. Bankers feeling that it would be inadvisable to break the rate locally would send to the large money centers and buy from note brokerage houses the paper of even their home customers at a lower rate than that at which they felt they could discount the note directly. A small fraction of one per cent was sufficient to take many business men from home for their accommodation. The practice grew for banks in the larger cities to buy or "check" commercial paper for their country correspondents and it became more and more imperative for the larger city banks to be well informed in the widest possible manner with reference to the credit of borrowers, especially of sellers of commercial paper through the note brokerage houses. A well equipped credit department, in short, became essential to the profitable operation of a large number of metropolitan and other banks having numerous connections with smaller institutions whose credit ascertaining facilities were purely local in scope.

The service rendered by the city banks was practically gratuitous. Charges were seldom, if ever, made.

But the ability and willingness of the city bank to furnish the desired information to its country correspondents was a magnet attracting new accounts and holding old ones against a growing competition.[1]

It must not be understood that the work of commercial paper houses led to the establishment of credit departments by only those city banks whose customers were in large part made up of correspondent banks. Banks like the Fourth National of New York, whose customers were chiefly merchants and manufacturers, early found the need of improved credit methods imperative in passing upon outside paper.

Paper buying banks maintaining well organized credit departments have a distinct advantage in being able to act both quickly and advisedly. When the money market is dull and paper, for the time being, comparatively scarce, names of the first rank are secured by those buyers able to give immediate acceptance. As a broker acquainted with the individual demands of his constituents can at times easily dispose by telephone of a million dollars in choice paper in a few minutes, the value of a quick decision is evident.[2]

[1] Banks in the larger cities are asked at times to purchase paper for the account of their correspondents. More frequently they are requested by their correspondents in the country to secure lists of offerings from note brokers and to check the names that are considered good. The lists after being checked are sent to the inquiring banks which generally buy the paper selected directly from the brokers. Ordinarily detailed reports are not given in connection with the names checked, as is true, commonly, when paper is bought outright by the city bank for its correspondent.

[2] William Post, *The Loan and Credit Department*, Bulletin of American Institute of Bank Clerks, Vol. III, p. 137.

With the rapid growth of our cities and the growing disposition of an increasing number of borrowers,—merchants, manufacturers, contractors, promoters, capitalists, and banks themselves,—to use borrowed funds, the borrowing demands upon banks became so heavy that an individual officer, unaided by facilities for collecting, systematizing and preserving credit information, was incapable of meeting the requirements of his bank. The cashier or other officer could no longer carry "in the head" the multiplicity of details touching the credit standing of borrowers. Not only did it become more and more difficult to know each borrower personally as population grew in numbers and density, but his affairs became less and less exposed to view. It was natural under these circumstances that well equipped credit departments should have been instituted and placed in charge of men specially qualified for credit work.

Another factor underlying the establishment and growth of the credit department was the spread of the corporate form of organization during the nineties and in later years. As the growth in the number of corporations and the increased size of the business unit, whether firm or corporation, took place, the lending capacity of the relatively small individual bank was outstripped. But the growth in the size of business corporations prompted a corresponding increase in the lending capacity of banking institutions in order that each bank might have sufficient capital and surplus to enable it legally to meet the needs of its more prominent customers. In many places banks found that the provision of the National Bank Act which limits indi-

vidual lines of credit to one-tenth of the paid-up capital and surplus hampered their activity in such a way as to suggest an enlarged capital and surplus as the legal basis of lending capacity adequate to meet the needs of their biggest borrowers. Growth in the size of banks and in the volume of their loans prompted the systematic collection and handling of credit information.

Relief from the restrictive loan requirements of our banking laws was found in many cases in bank consolidations which still further promoted the credit department movement. In numerous cases of consolidation the need of a credit department was felt in order that credit information, indifferently gathered and filed previously might be focalized and handled systematically and efficiently in accordance with the newer and larger needs.

In another and quite different way the corporate form of business organization has contributed to the establishment of elaborate means and methods of obtaining and handling credit information. The rise of the corporation at once eliminated in large measure the personal and friendly element between debtor and creditor and afforded a screen for personal credit and personal honor. As the soulless corporation supplanted the partnership, men struggled less energetically to keep their family honor and name from the records of the bankruptcy court. Stockholders and managers of corporations had less incentive to pay their debts in full, and the lending bankers were subjected to greater labor and compelled to scrutinize more closely in order to protect themselves from loss.[1]

[1] J. G. Cannon, *Credit, Credit-Man, Creditor*, Bankers' Magazine (New York), Vol. LIII, p. 34.

There is no doubt that actual losses occurring under the old system, or lack of system, have been an immediate and inciting cause of action taken with a view to the installation of complete credit files. "Losses under the old system," says one banker in the Northwest, "proved the absolute necessity of accurate and complete credit data."

In some instances improved facilities for the procuring of credit information have themselves been more or less favorable to the installation of credit departments, while the requirements of the Federal Reserve Act that all paper eligible for rediscount must carry a statement of condition of the maker has been decidedly important. The installation of modern bank credit methods has been advocated by bank examiners from their points of vantage, in and out of season.

The Rise of the New Business Department and its Relation to the Credit Department

The aggressiveness with which both new deposit and loan accounts are sought marks an innovation in American banking. A large number of new accounts are to-day obtained by energetic personal solicitation. A former generation regarded this beneath the dignity of the banking profession, but a new day has dawned.

The custom of sending traveling representatives to secure new accounts and to strengthen old ones dates back fifteen or twenty years. More recently, since about 1912, new business departments have been established by banks in the large cities, where one or

more officers are charged with the duty of building up the business, and to this end call, or have representatives call, upon existing or prospective customers and correspondents, presenting their claims, describing their methods, equipment and facilities. At the same time valuable information is acquired as to the resources and business of the communities, banks, and business concerns visited. A capable representative systematically collects a vast amount of highly valuable information which is recorded in the credit files of the bank.

The work of the new business department dovetails with that of the credit department. It has been natural for the bank management in many instances to utilize effectively information in its possession concerning the credit worth of a firm or corporation that gave promise of becoming a profitable customer. As the names of desirable prospective customers are discovered through the activity of the credit department of the bank in the larger center, steps are taken by the new business department toward enrolling those names on the ledgers of the bank. If some banks have resisted the temptation to utilize the credit department in the compilation of information for the solicitation of new business, allowing that department to focus its entire attention on the standing of makers of paper under discount in the particular institutions, others have not.

It sometimes occurs that new accounts are secured by banks through the offer of lower rates of interest than those paid to competing banks by the concerns solicited. Eastern banking institutions have been able frequently to offer the western borrower lower dis-

count rates than prevailed in the West because of the greater abundance of money in the Eastern banking centers. Banks in New York City, in particular, are said to resort to lower rates as a means of securing new accounts, except in periods of stringent money.

Again, the offer of a more extended line of credit than that granted by rival banks has been used as a leverage in breaking relations already established between borrower and competing bank. A house having a maximum credit of $40,000 at a local or even metropolitan bank is not unlikely to be receptive with reference to an offer of a line of credit of $50,000 coming through the new business department of another bank whose facilities may be superior, and whose name may be one of greater prestige.

Reference need scarcely be made to advertising as a means of obtaining new accounts. Suffice it to say that in recent years banks have advertised in the daily press, monthly and other periodicals, trade journals, bankers' journals, financial publications, by signs in street cars and even by bill board posters. Books and booklets, blotters, calendars, and cards have been distributed with a freedom that would have scandalized bankers of the old school.

Competition among commercial banks is keen, although not unrestricted. It would not conform with the facts to say that the new business department solicits accounts without careful discrimination as to the banks with which the prospective customers already have established dealings. The checks of possible or desirable customers passing through a city bank bear the names of the respective banks with which customers

do their banking business and enable the city banks to pass by, as if undesirable, the customers of friendly institutions and to seek out depositors of banks for whose goodwill the soliciting bank has no special concern or regard.

The activity of the new business department, through which competition finds vent, tends to place in the possession of each borrower whose account is sufficiently important to attract wide attention, a line of credit in keeping with the decision of the credit manager and lending officer whose findings and judgment are, of all the soliciting banks, most favorable to the borrower, and the accounts of big borrowers, therefore, tend to gravitate toward the bank with a liberal policy of credit extension.

The work of the bank credit department in apportioning available banking funds among the most prudent and capable borrowers is of almost incalculable social value and the new business department extends the field to which the beneficial results of the work of the credit department enure. But in the process of extension, as we have just seen, there arises a tendency to grant credit more freely than would other banks that are also eagerly striving both to hold old accounts and to obtain new. Thus the constraining and conserving influence of the *credit* department of one bank is qualified and impaired by the activity of the *new business* department of another. While there is complete harmony in the aims and work of the two departments in an individual bank, cross purpose appears when they are viewed from the standpoint of the banks considered as a system.

The Influence of the Federal Reserve System upon the Kind and Quality of Bank Loans

The Federal Reserve system also has had a marked influence upon the kind and quality of our bank loans.

The establishment of the system has had a strong tendency to increase local loans with a corresponding reduction in the volume of funds placed on deposit by banks in correspondent banks. Under the old system a manufacturer desiring to buy raw material to be fabricated into goods for the market and out of the proceeds of their sale pay off his loan would in applying for a loan for, say, ninety days, get some such response as: "We would like to make you the loan, you have always paid your obligations promptly, we know the condition of your enterprise would warrant the extension of the credit you desire. But we are sorry that our own probable needs are such as to make it inexpedient for us to make the loan except on demand." The reply of the manufacturer was: "That is entirely out of the question. As it will require at least ninety days to place the goods on the market, a demand loan might prove very embarrassing." The result has been that the manufacturer has not taken the loan and production has been curtailed. The banker probably had to be satisfied with two per cent paid by his city correspondent.

Under the Federal Reserve system with its facilities for rediscount, the banker can feel safe in lending, even if extraordinary needs loom in the future. Making a loan for commercial purposes to borrowers of good standing no longer necessitates the tying up of

funds for the currency of the loan. Instead of lending to his correspondent on demand at two per cent, the banker may now lend to his customers at a higher rate, but with as great freedom from apprehension concerning the future.[1] It is easily seen that this circumstance, by enlarging the power of banks to make local loans, and by curtailing the deposits of city bankers, must tend to relegate the call loan to a less conspicuous place in our financial system.[2]

A second effect worth noting is that in certain quarters, as on the Pacific Coast and in the St. Louis district, the operation of the Federal Reserve banks has favored the discontinuance of the practice of discounting paper having no definite maturity. Years ago, before active economic development commenced on the Pacific Coast, when merchants needed little accommodation, the most important outlet for the bankers' funds was to loan to property owners, who were naturally encouraged by the banks to keep the funds over long periods. Under these conditions it was expedient to make the notes payable one day after date with the understanding that the notes were so drawn in order to enable borrowers to pay at their convenience, and one-day paper in California means paper with an indefinite maturity. Borrowers still assume that they may pay when they like, while bankers flatter themselves that the paper, past due, is sub-

[1] *Cf.* W. McC. Martin, *Rediscount Facilities and Methods*, Proceedings, Nineteenth Annual Convention, Indiana Bankers' Association, 1915, pp. 125, 126.

[2] *Cf.* Charles S. Hamlin, Proceedings, Nineteenth Annual Convention, Indiana Bankers' Association, 1915, p. 118.

ject to call on demand. Both may be disappointed. The growth of the Federal Reserve system in magnitude and influence, and of the practice of rediscounting at the regional banks, must tend to eliminate paper of the kind described and to put two kinds in its place: paper that is payable on demand with collateral back of it that can be readily sold to enforce the demand, and paper that has a definite maturity.[1]

A third effect of the Federal Reserve system has been to improve, or tend to improve, the quality of bank loans through the requirement that paper eligible for rediscount be accompanied by a statement of the assets and liabilities of the borrower, except where a bank's own depositor borrows not more than $5,000 in amount.

The introduction of the trade and bank acceptances, under the operation of the Federal Reserve Act, has also worked in the direction of sounder and more liquid bank loans.

A trade acceptance is a time draft drawn by a seller of goods on the buyer for the price thereof, and bears on its face the signature, *i. e.*, acceptance, of the buyer with the date and place of payment. The introduction of this instrument of credit into many lines of trade after 1913 has given the banker a distinctly liquid portfolio item. Based on the current needs of the acceptor, this two-name paper is a secondary reserve that can be converted at once into primary reserve through the easy process of rediscount. Open accounts are looked upon by many bankers as "frozen."

[1] Stoddard Jess, *Probable Changes in Banking Methods under the Federal Reserve Act*, Proceedings, Twentieth Convention, California Bankers' Association, 1914, p. 96.

A bank acceptance differs from a trade acceptance in that the bank acceptance is executed by a bank, or other corporation, firm or person engaged in the business of granting acceptances. Whatever its foundation, whether domestic or foreign trade, the bank acceptance affords a superior medium for investing bank funds which are to be held liquid, inasmuch as such paper can be converted into cash through sale in the open market which has grown up since 1914 or through rediscount at the Federal Reserve or other banks. For funds only temporarily available, the bank acceptance is a most satisfactory investment.

The revised banking law of New York State conferred authority upon institutions organized under its provisions to accept for payment at a future date drafts drawn upon them by their customers, without limitation as to the nature of the transactions involved, and numerous houses have pursuantly become extensive acceptors and dealers in bills. With the rise of these institutions national and other banks have adopted an increasingly liberal attitude toward incurring acceptance obligations, and the number of banks now engaged in the business runs well into the hundreds.

In the open market for bank acceptances the Federal Reserve banks have been the most important buyers, at most times overshadowing the commercial banks and other acceptors. During our participation in the Great War and for a short time previously money rates were tight and bank acceptances would have been a drug on the market but for the liberal acceptance buying policy of the regional institutions. In the er-

ratic market following the cessation of hostilities the same banks were heavy and stabilizing purchasers.

The growth of the bank acceptance market has been little short of phenomenal, but the trade acceptance has had a hard struggle to gain recognition. Commercial paper houses have opposed resort to the trade acceptance by their customers on the valid ground that buying banks prefer the paper of concerns whose borrowings are in only one kind of paper. Furthermore, the market has been narrowed by the unwillingness of the larger banks to investigate the credit worth of houses offering trade acceptances when the denominations have been small. The development of the trade acceptance as a factor in our open market lies chiefly in the future.

CHAPTER VIII

The Bank Borrower's Statement: Assets

The credit worth of a borrower, which may be defined as the amount which he will be able and willing to repay at maturity or to the reasonable satisfaction of the lender, depends upon three factors: capital,[1] business ability or capacity, and character. While, from the banker's view point, capacity and character are more essential than capital in connection with small loans, capital more or less liquid is, along with the other two factors, a *sine qua non* in connection with loans of large amount, notably loans to corporations, in which the element of personal responsibility is, in comparison with loans to firms and individuals, somewhat less conspicuous.

Reference was made in the last chapter to the growing custom of banks in requiring borrowers and those desiring to borrow to submit statements consisting, generally, of a balance sheet and, frequently, an income account, as a means of enabling the banker to pass intelligently upon loan applications. It will be our purpose now to examine the borrower's statement as an index of his credit worth. That statement will

[1] Collateral, which is frequently the most important criterion of a borrower's credit worth, is discussed in chapter XII, on secured loans.

be studied with a view to discover what light it throws on the borrower's capital and capacity. From the borrower's statement experienced credit men are able incidentally to make important deductions bearing upon his character. Information concerning the character of the borrower, however, is for the most part obtained from sources extraneous to the statement.

In the analysis of a borrower's statement the bank credit man has uppermost in his mind two questions. First, is there a reasonable certainty that the proposed loan will be met at maturity, and, second, if unforeseen circumstances should prevent payment at maturity will the loan be paid ultimately? An answer to the first and most important question is sought largely in the relation of the borrower's quick assets to his current liabilities; an answer to the second, in the relation of his slow or permanent assets to his permanent liabilities. At the very outset, then, the banker divides both the assets and liabilities into quick or current and slow or permanent.[1] Current liabilities must be met out of quick assets; permanent liabilities should be fully offset by slow or permanent assets.

The form of statement that banks ask their borrowers to sign varies decidedly.[2] It will be advisable

[1] Clay Herrick, *Borrowers' Statements and the Rulings of the Federal Reserve Board*, 25th Annual Convention, Ohio Bankers' Association, 1915, p. 45.

[2] Appendix B, containing the report of the committee on credit forms made to the American Bankers' Association, at Atlantic City, N. J., September 28, 1917, gives forms designed for (1) farmer, (2) firm or individual (manufacturer or merchant), (3) corporation (manufacturer or merchant). By no means all borrowers consent to fill out forms, particularly those furnished by the banker. Many

here to present a statement for study with all but its most essential features pared away.

Assets

Cash on hand		$.....
Cash in bank		.....
Accounts and notes receivable		.....
Merchandise:		
Finished	$.....	
In process	.....	
Raw material	.....	
		.....
Real Estate		.....
Machinery and fixtures		.....
Other Assets, and of what composed		.....
Total Assets		$.....

Liabilities

Bills payable for merchandise	$.....
Accounts payable	.....
Bills payable to own bank	.....
Bills payable for paper sold	.....
Mortgages on real estate	.....
Chattel mortgages	.....
Bonded debt	.....
Deposits of money with us	.....
Other indebtedness, and of what composed	.....
	$.....
Net worth or, in case of corporation, the capital stock plus surplus or minus deficit	$.....

corporations insist on ignoring such forms and in their place give their own formulated statement.

Questions are inserted, following this statement, concerning contingent liabilities, insurance, depreciation, total sales for previous year, terms of sale, annual expenses, dividends, etc.

Obviously the most liquid asset of a business enterprise must be its cash. Next are accounts and notes of customers, which are only a step removed from cash in the degree of their liquidity. Such receivables constitute the connection between merchandise or manufactured product on the one hand and cash on the other. Merchandise or manufactured product, flowing in a constantly changing stream, is transformed into notes and accounts receivable and, with the progress of time, the receivables are merged one by one into cash. Merchandise or finished product, receivables, cash, are the principal quick or liquid assets.

The difference between quick and slow assets may be not only a difference in degree but also one of kind. The value and quick salability of many quick assets, *e. g.*, merchandise, depends upon the consuming power of the community or market. The value of other quick assets, *e. g.*, United States bonds, has little or no relation to the consuming power of the community at the time. The value of slow or fixed assets, such as real estate, plant and machinery, depends largely upon their present and prospective earning power.

Current liabilities consist of accounts and notes payable, wages, interest and other items of a current nature. Slow or permanent liabilities include chiefly such long time obligations as bonded indebtedness, mortgages or liens on real estate and plant, and "deposits of money with us." The last named may, in

many instances, be more properly treated as a current obligation.

The capital of the borrower, by which is meant the proprietors' interest in the case of a partnership and the net worth in the case of an individual entrepreneur, is equal to the assets minus the liabilities. When a corporation is concerned the capital, as we are using the term, is equal to the par value of the capital stock plus the surplus or minus the deficit. But deducing the amount of the borrower's assets available for the payment of current debts, as well as ascertaining the aggregate capital, is more than a matter of mere arithmetic; careful scrutiny of the balance sheet is required, item by item.

Cash on Hand and in Banks

Cash on hand and in banks should be large enough properly to "balance" the statement. The most approved amount varies with the requirements of different lines of business, but, in general, bankers like to see from 5 to 15 per cent of the quick assets in the form of cash. If the cash is very small the concern is in danger of being unable to meet maturing obligations in the event of a falling off in expected collections. An inadequate balance will, at the same time, tend to cause the banker to be indisposed to extend needed credit. If the cash is disproportionately large the borrower is impairing his ability to meet future obligations by not keeping at work money on which he may be paying interest. The shrewd and far-seeing borrower will reduce the cash item in fair weather and increase it in advance of the storm. The concern with plentiful cash

on hand in time of monetary stringency or crisis has an enviable purchasing position.[1]

The credit man considers cash on hand and in bank from two angles, quality and quantity. In quality the item is likely to be adulterated. Besides the legitimate currency, checks, and bank deposits, there may be found floating memoranda of varying degrees of magnitude and character. A controlling officer may be liberally represented in the cash drawer by his I. O. U.'s.[2] A worthless check of a partner may be kept in the cash drawer over statement day, later to be destroyed.[3]

A large number of I. O. U.'s or other slips of paper representing cash is sometimes found traceable to the use of what is known as the imprest cash system, by which the cashier in branch office or factory is given a fixed working fund out of which to make payments from time to time, it being understood that the sum of the expense vouchers plus the cash on hand is at all times to be equal to this cash fund. These funds are commonly reported at the full amount although a considerable portion of the cash recorded may be in the form of vouchers which are later to be charged to expense or capital accounts.

Cash has been known to be tied up in failed banks,

[1] Norman I. Adams, *Credit Department, Analysis of the Financial Statement*, a lecture delivered before the Boston Chapter of the American Institute of Banking, February 4, 1913, pp. 5, 6.

[2] Frederick H. Hurdman, *Credits from the Standpoint of the Certified Public Accountant*, Proceedings, Fortieth Annual Convention, American Bankers' Association, 1914, pp. 468, 469.

[3] Norman I. Adams, *op. cit.*, p. 5.

and to have been stolen by employees. Cash on deposit at the bank may be tied up by liens against it, or may be in the form of a special deposit which is not to be withdrawn except after a time notice. Cash on hand at the date of the statement has been known to disappear the next day through dividend or other special disbursements.[1] While cash on hand is a questionable asset, being so easily transferred from one pocket to another, cash in bank is subject to easy verification where the borrower is a depositor of the lending bank, and must be carefully analyzed in the light of a knowledge of market conditions in the trade of the borrower. Some trades have only one season; some have two; others have four. In the first case the borrower will have a flush season when a large bank balance will be carried followed by a season when such balance will be at a minimum, and when heavy borrowing will be necessary. Where a concern has two seasons and even more emphatically when it has four seasons, *i. e.*, a continuous market, its receipts should approximate its outgo and then a bank balance disproportionately small with reference to obligations would be an element of weakness.[2] The shrewd lender does not fail to ascertain whether cash has been "rigged" through the accumulation of receipts and the postponement of expenditures.

For the sake of the good will of his banker a borrower

[1] Clay Herrick, *Borrowing Statements and the Rulings of the Federal Reserve Board*, Proceedings, Twenty-Fifth Annual Convention, Ohio Bankers' Association, 1915, p. 48.

[2] W. Oliver Craig, *Banking Credits*, Bulletin, American Institute of Bank Clerks, Vol. V, p. 709.

should maintain an average balance equal to at least 20 or 25 per cent of the loans extended. Such a balance is justifiable on the ground that the bank itself keeps balances in numerous and widely scattered banks as compensation for clearing and collecting items within their territory. Even the largest banks with the most modern facilities use other banks as agents in making collections.

Where the borrower maintains that he has only one bank account, it is a good practice for the banker to compare the amount of cash in bank shown in the statement with the bank's records, as a check on the borrower's figures. Although the two amounts will not agree exactly on account of outstanding checks, any gross overstatement may be detected.

A bank's records are of value also in throwing light on the cash item at times other than on statement dates. Banks sometimes examine a borrower's deposit account in order to ascertain whether his balance would have been overdrawn had all checks outstanding on a given date been presented for payment on that date. An account potentially overdrawn is a sign of financial strain which the banker justly views with misgiving and concern.

In very few instances should a large sum of money appear under the head of cash on hand. If this item is large, it is very likely to be a sign of lax financial methods. Few businesses in the twentieth century require that any large amounts be paid out in actual currency. Even wages—although the practice is not always socially and economically desirable—are usually paid by check. The careful business man

makes it a rule to bank all cash as it is received. The man who does otherwise is likely to be careless about other and more vital features of his business.[1]

Accounts and Notes Receivable

Notes receivable, once an important item in the balance sheet of American business enterprises, have almost entirely given way to open accounts. Only in such businesses as the lumber, some branches of the tobacco business, the jewelry and piano trades, plumbers' supplies, and agricultural implements, does the note persist. The appearance of notes receivable in the statements of concerns engaged in other lines is almost certain evidence that such obligations represent a conversion of slow and perhaps uncollectable outstanding accounts.

Taken together these two items, notes and accounts receivable, should bear a definite and fairly constant relation to the volume of sales, and violent fluctuation above or below the percentage as calculated on statements rendered by successful concerns in the same line of trade or manufacture as well as on the last statement submitted by the borrower should evoke the banker's closest scrutiny as indicating one or more of three conditions.[2]

In the first place trade conditions may be abnormal. The extent to which an increase in the ratio of receivables to sales is due to this cause can generally be satisfactorily determined by the banker from his

[1] Ernest Reckitt, *Commercial Balance Sheets*, Bulletin, American Institute of Banking, Vol. XI, p. 537.

[2] *Idem, op. cit.*, p. 538.

knowledge of trade and financial conditions. Any reasonable banker would expect an increase in the ratio of receivables to sales during a crisis.

In the second place there may have been a falling off in the efficiency of the credit and collection departments of the business of the borrower and more extensive credit may have been extended to customers than formerly. Close inquiry as to the workings of the credit department of the borrower frequently throws strong light on the liquidness of receivables. Whenever a thoroughly capable credit man is in charge of the credit department of the borrower's business it is not only insurance against wide fluctuation in the relation of receivables to sales but is also a presumptive indication of worth in the receivables of the concern.

In the third place a marked rise in the ratio may indicate that the figures for either sales or receivables or both have been manipulated. If this supposition arises the banker would naturally be wary about extending credit. He may well insist that competent accountants and appraisers examine the affairs of the borrower in detail.

Book accounts, like notes receivable, are seldom if ever worth par despite a strong inclination among borrowers so to regard them. The foremost question that the banker has to ask in connection with this item has to do with the allowance for bad debts. In addition the banker ought to know to what extent, if any, personal accounts of officers or employees are included. Is the business national in scope and are the accounts widely distributed geographically so as to avoid the

likelihood of having the bulk of them in territory where business is depressed? A concern whose accounts were mainly in the cotton states in the fall of 1914 was in an unenviable position. To what extent are accounts in the hands of attorneys for collection? What is the volume of assignment accounts? Have any accounts been sold to discount companies that have presumably taken off the cream? Do any of the accounts represent amounts due from branches or affiliated concerns? All these questions are calculated to enlighten the banker as to essential facts in connection with this important item.[1]

Occasionally statements show accounts and notes receivable under and over sixty days due. As a general rule this does not explain how the accounts receivable stand, as there may be bad accounts not yet long overdue and large items long overdue that are fully guaranteed. To the banker who can count upon the veracity and honesty of the borrower a statement that shows the accounts that are good would mean more than one that distinguished between those over and those under sixty days due.[2]

The element of uncertainty in notes receivable is more pronounced than in accounts receivable. Perhaps some notes have been renewed, and others may

[1] Clay Herrick, *Borrowers' Statements and the Rulings of the Federal Reserve Board,* Twenty-Fifth Annual Convention, Ohio Bankers' Association, 1915, p. 49. Also *cf.* Thomas J. Kavanaugh, *Essentials in the Granting of Bank Credits,* Trust Companies, Vol. XXIII, No. 2, August, 1916, p. 120.

[2] William Whitfield, *Actual Conditions versus Borrowers' Statements,* Proceedings, Oregon State Bankers' Association, 1914, p. 43.

be past due. Let the credit man ascertain whether all the notes have arisen from the regular course of business. Some may represent loans to officers or employees or other individuals. In corporations, shareholders sometimes give notes in payment of capital stock. Notes of subsidiary concerns may be among others. In many lines of business only the less desirable customers give notes, others buying on open account or for cash. A large amount of notes receivable appearing in a statement submitted to a banker would in most lines of trade indicate that the borrower was dealing with weak concerns that were not able to discount their bills. In some businesses, *e. g.*, the piano business, receivables are likely to contain notes payable in monthly instalments, and extending over a long period.[1] It is only after taking such matters as these into consideration that a banker can estimate with a satisfactory degree of accuracy whether this item in the balance sheet represents quick assets on which he can rely. When notes receivable are found it is always important, as already indicated, for the banker to ascertain whether they are in the possession of the borrower and not hypothecated.

The note, as compared with the book account, is objectionable from the standpoint of both bank and borrower because of the difficulty of taking quick legal action for recovery, should doubt arise as to the solvency of the signer. If a note is taken for three months and in the meantime doubt arises as to the solvency of the maker, quick action for recovery is impracticable. Effective legal action cannot be taken until the note

[1] Clay Herrick, *op. cit.*, pp. 48, 49.

matures. In the case of an open account, on the other hand, the legal means of recovery are quickly available.[1]

Where the banker is distrustful of the items of accounts and notes or bills receivable, his suspicions may be confirmed or removed by obtaining an itemized list and establishing the worth of each separate account.

Merchandise or Inventory

It must be said at the outset that this item frequently gives no end of trouble to the credit man of the bank. "Inventory is the acid test of honesty." The audit of certified accountants frequently throws only a dim light on the character and actual value of the stock of goods,—so easy is it for a concern here to conceal its actual condition. As it is difficult for the accountant to take complete inventories in many large establishments, an official simply certifies to the correctness of the figures. It is true that accountants frequently sample the inventory, making such physical tests as practicable, but old and shopworn goods or those that have lost much of their original salability on account of being out of date cause accountants a great deal of difficulty of appraisal. Lines very difficult to appraise accurately are women's wearing apparel, millinery, novelties and those in which the style element is prominent.

More and more frequently banks extending heavy lines of credit are having their own representatives

[1] William Post, *Analysis of Borrowers' Statements*, Journal of Accountancy, January, 1906, Vol. I, No. 3, p. 183.

from the credit department, after becoming thoroughly familiar with the stock of merchandise composing the inventory, not only audit the books of the borrower but make a careful appraisal of assets as well. In many cases an acquaintance in the trade can be relied upon, particularly by bankers in the smaller cities, for expert opinion with reference to the valuation set forth in the statement. Experts in the trade would be familiar with the value of both finished and unfinished goods.

When accountants and special appraisers are responsible for auditing a concern's affairs it is always advisable to have the audit follow closely on the heels of the annual inventory as this procedure affords the auditors better opportunity to make physical tests of the inventory as a check on the inventory figures furnished by the concern.[1]

The location of the goods inventoried is not a negligible factor to the credit man analyzing the statement. Goods scattered in numerous agencies or branches not only require a superior organization at the main office for administrative purposes but also more than ordinary care and vigilance in evaluation.[2] If distributed in warehouses, branch offices or sales agencies, merchandise or supplies are accounted for less simply and accurately than when kept in one center.

[1] Charles E. Meek, Proceedings, Twenty Second Annual Meeting, Kentucky Bankers' Association, 1914, p. 55, and Financial Age, October 3, 1914.

[2] William Post, *The Four Big C's*, Address delivered at the Meeting of the Philadelphia Credit Men's Association, January, 1910, pp. 48, 49.

The location of goods inventoried, is, however, of much less interest and import to the banker than the method of valuation. Inventories will frequently vary in the ratio of 1 to 6, according to the basis or method of valuation, and allowance for obsolete, deteriorated or second-hand stock. A given stock may be inventoried at as low a figure as $25,000 or as high as $150,000. How the inventory item may mislead the unwary banker, owing to a defective basis of appraisal, will be made plain by an illustration. In the case of concerns dealing in equipment, machines, etc., it may be necessary to take in second-hand stock in exchange for new machines, etc., sold. The second-hand goods may be put on the books at their "trade-in" value, which may greatly exceed their selling value. The relative inventory may be taken from the office records and the banker be misled when he examines the balance sheet accompanying an application for a loan.[1] An auditing accountant would be able in a situation of this kind to discover the overvaluation and would probably make such arbitrary reduction as he thought fitting; but auditing and appraisal representatives of the bank, by reason of specialized knowledge, would likely succeed in making the reduction more nearly in accord with the facts.

Although there is some difference of opinion among credit men as to the point, the basis of merchandise valuation, it is pretty generally agreed, should be either cost or market price, whichever is lower. All old and unmarketable goods should be written off the

[1] William Whitfield, *Actual Conditions versus Borrowers' Statements*, Proceedings, Oregon State Bankers' Association, 1914, p. 44.

inventory. During a period of rapidly rising prices, on the other hand, cost of replacement may justifiably be made the basis of inventory appraisal. Fire insurance conditions on occasion may even make this procedure imperative.[1]

The banker ought to guard against the occasional and obviously objectionable practice of taking merchandise into the inventory without immediately entering the bills upon the books as a liability. He ought also to insist that there be no omission from the inventory of stock taken into the house, even though the relative liabilities are also omitted from the statement. To leave out both goods and the liabilities therefor, which results in showing upon the statement small stocks and reduced liabilities, distorts favorably to the borrower the ratio of quick assets to current liabilities. To make this clear let us suppose a given borrowing customer of a bank truthfully states his quick assets as worth $500,000 and his current liabilities, including the amount of the loan required, $300,000. The ratio is 5 to 3 and such, perhaps, as to raise serious question in the mind of the banker as to the wisdom of lending. Now let the applicant for the loan omit from his statement $100,000 worth of merchandise just put in stock and the same amount from his current liabilities and the ratio becomes $400,000 to $200,000 or 2 to 1. The double omission is most common in lines of business handling seasonal goods where the purchasers of one season are designedly separated on the books of the concern from the purchases of another. Convenient,

[1] J. H. Tregore, Journal of Commerce, February 10, 1917.

perhaps, to the borrower, the practice is fraught with deception to the banker.[1]

Statements of manufacturing concerns should classify stock as among raw materials, goods in process, and finished products. Raw materials and supplies[2] like cotton, wool, metals, fuel, and oil, are commonly so salable that they may be safely appraised at cost. When finished goods have a ready market they are conservatively inventoried at cost, but "cost," it is obvious, should not include any expenses involved in the sale of the goods. Some bankers insist that goods in process be valued at cost of raw materials and some have no objection to a valuation according to the figures contained in cost sheets. The last mentioned practice is unobjectionable to the extent that the borrower is solvent and prosperous beyond question. However, the credit man must always face the fact that unfinished goods require, in the event of failure, heavy expenditures under unfavorable conditions preparatory to marketing.

One of the principal points in the investigation made by the credit department is to ascertain how a concern buys its goods, whether the buyer or buyers are competent to judge merchandise or materials and disposed to buy in accordance with requirements. No one

[1] *Cf.* Frederick H. Hurdman, *op. cit.*, p. 473.

[2] It is in place to point out that a large amount of raw material represented in the balance sheet of a manufacturing concern may well indicate that the concern is buying heavily when prices are low,—a circumstance that may promise large profit without great risk of loss, during a period of rising prices. *Cf.* Louis N. Roe, *The Granting of Credit*, Bankers' Magazine (New York), Vol. LXXXIII, Nov. 1911, p. 604.

knows better than the experienced lending officer of a bank how seriously injudicious buying and the accumulation of undesirable stock will impair the resources of a concern. "Goods well bought are half sold." Shrewd buying has its reflection in a clean and salable inventory.

It would be a mistake for the reader to suppose that general rules exist for the valuation of merchandise or other assets. Nothing could be more erroneous. The credit man or lending officer of the bank considers each case on its own merits.[1] Even in the case of such staples as flour, iron, leather, wool and cotton different grades exist and only an approximation to a correct valuation is possible, albeit daily quotations furnish a record of the market values. Whether in times of peace or war wide fluctuations occur in the value of such necessaries as those mentioned, within a relatively short time. The sagacious lending officer not only makes allowance for such fluctuation but also leans heavily upon the judgment of trade experts.

Should the lending banker become involved in the affairs of a concern whose assets are largely in merchandise he ought to bear clearly in mind that the sale of a stock of merchandise at prices that will cause anything short of a slaughter of the interests of the merchant or banker, where he is concerned, requires considerable time. The failure of a merchant to pay 100 cents may be due in large measure to bankers clamoring for a settlement, and forcing a quick sale of goods in bulk. A merchant in Philadelphia in partner-

[1] William Post, *Analysis of Borrowers' Statements*, Journal of Accountancy, Vol. I, No. 3, January, 1906, p. 186.

ship with another bought the stock of a bankrupt concern in Boston and cleared one hundred thousand dollars in ten months. The creditors were banks impatient for a settlement. They got it, "reasonably quick and unreasonably small."[1]

Real Estate, Machinery and Equipment

The statement should give full information concerning land, buildings and equipment, including a description, along with data covering any indebtedness against the property in the nature of mortgages or other liens. The apparent equity of a concern in mortgaged real estate may be seriously reduced by back taxes, assessments and other liens of this character. The valuation of property should be compared with the county (or other) assessment figures, and, wherever practicable, the mortgage records investigated.

In securing a statement from an individual borrower the cautious banker is careful to have it explicitly stated that the real estate is held in the name of the borrower, and not jointly. Even borrowers of honesty and integrity have a habit of forgetting to mention that realty is held jointly with their wives. This is a point where state laws seem to favor the debtor.[2]

It is contended in some quarters that the credit man's valuation of the real estate item should be influenced by such a factor as how essential the real estate is to the profitable conduct of the business of

[1] William Post, *The Credit and Loan Department*, Bulletin, American Institute of Bank Clerks, Vol. III, p. 136.

[2] J. H. Johnson, Proceedings, Thirteenth Annual Convention, Michigan Bankers' Association, 1901, p. 43.

the borrower. The plant of a manufacturer should be valued higher ordinarily, it is maintained, than real estate owned by a jobber which is not a necessary adjunct to his business. Brick, mortar and equipment which might not realize twenty five cents on the dollar under forced sale should be valued at a much higher price when owned and managed by capable borrowers. The valuation of real estate is thus made a function of the capacity of the borrower. It is also urged that real estate which is extraneous to the conduct of a business should be entirely stricken out or appraised on a nominal basis.[1] The cases in which real estate even approaches the character of a quick asset are rare, and its value concerns the lending banker chiefly in connection with a *long time* view of the credit worth of the borrower.

As a basis of appraising real estate employed in manufacturing, cost or cost of replacement is usually unsatisfactory. What the plant would sell for in the event of liquidation is the most vital question. It is evident that the answer to this question will hinge chiefly on location and the nature of the goods for the production of which the plant is equipped. In the case of a manufacturing enterprise, whose plant is not centrally or well located, employed in turning out goods in the production of which few are engaged,—*e. g.*, Jews' harps or paper makers' felt,—land, plant and equipment would have few buyers at the time of a sheriff's or receiver's sale. If an old plant, unfavorably located for the production of a new and different arti-

[1] W. Oliver Craig, *Banking Credits*, Bulletin, American Institute of Bank Clerks, Vol. V, pp. 708, 709.

cle, would have to be remodelled and newly equipped before the creditor bank would be able to realize on the capital advanced as a loan, the credit man had better insist on a nominal valuation. If on the other hand the plant is well located in an industrial center and employed in manufacturing a staple like some of the textiles, for example, both plant and machinery might easily be sold on short notice at a price approximating cost of replacement. As the plant is by far the most important single asset, quick or slow, in many lines of manufacturing, the credit man is compelled in fairness to the borrower as well as by banking competition to evaluate this item as liberally as safety will permit.

A sharp distinction should be made generally between real estate used for manufacturing and that for merchandising. A business structure if conveniently located for trade and not adapted specially to any one purpose is a good asset. If the business that may now occupy it should be withdrawn the building and lot could be sold and applied to other use. The value of the real estate is easily appraised and the banker is justified in placing a relatively high value upon it. The situation in connection with a manufacturing plant is entirely different,—if the business fails it is likely to be difficult to apply the premises to other purposes. As a general rule the banker should not value the plant at a higher figure than that at which experts in the line of manufacture concerned would be willing to take it over as a "going proposition."

Machinery is almost worthless as security for a bank loan. Unless of very high grade it cannot be sold

usually for much more than its value as scrap. It is far removed from being a quick asset and can be allowed weight in the consideration of the credit man only when he knows the applicant for the loan is prosperous, is adding to working capital from year to year, and that all the elements of success are present.[1]

The book value of machinery should be steadily scaled down, unless the concern is known by the banker to carry an offsetting reserve fund for depreciation,—a fund to which is charged the cost of machines bought to replace those going to the scrap heap. It is to be noted that concerns whose practice is to keep machinery at a very high state of efficiency, maintain that continually to charge off for depreciation rather than carry a reserve fund is to invite a reduction in fire insurance below what is equitable and reasonable.[2]

Whatever the nature of the business of the applicant for a loan, the items of real estate, machinery and equipment should be appraised carefully and conservatively. Machinery and equipment had better be placed on a nominal or, at most, a liquidation basis of valuation, the banker normally assuring himself as to provision for repairs, renewals, and replacements.

Other Assets

Among the most important items included in "other assets" are stocks and bonds, patents, trade-marks,

[1] William Post, *The Analysis of Borrowers' Statements*, Journal of Accountancy, January, 1906, pp. 187, 188.

[2] William Post, *The Loan and Credit Department*, Bulletin of the American Institute of Bank Clerks, August 1, 1903, Vol. III, p. 135.

good will, and such deferred assets as insurance paid, organization expenses, taxes paid in advance.

Stocks and Bonds

Under the head of other assets, or otherwise, the item of stocks and bonds appears in a large number of borrowers' statements. When the securities are good stock exchange collateral they may safely be included in the quick assets. If the securities are those of companies affiliated with but controlled by the one under review, and are of significant proportion, close study should be made of the relation of the one company to the others in order to disclose, if possible, any contractual obligation or contingent liability under stock ownership, enjoined by the state in which the controlled company was organized.[1] The banker who profits from past experience will require a consolidated balance sheet, prepared by competent accountants, of a concern that is financing branches and subsidiaries in order that the standing of the concern as a whole may be revealed.

The reason for holding listed securities, if carefully inquired into, may disclose a speculative tendency in the concern. A bank should have all requisite information in an instance of this kind. The customer may have embarked on some speculation or venture foreign to his regular business which would put him under obligation to pay instalments at successive dates. His statement may show the first one or two payments as an investment, and make no mention of the

[1] Frederick H. Hurdman, *op. cit.*, p. 474.

liability in connection with the instalments not yet due.[1]

Unissued stocks and bonds of a borrowing corporation are not an asset and should not be so shown. Treasury stock, or stock which has been repurchased, must be regarded as a slow asset unless a wide market for the stock exists. Even when the securities are listed and active on an important exchange their value, in the event of failure, would be residual and until the completion of liquidation, indeterminate. Serious weakness may easily be concealed in the "investments" item, which, accordingly, should be carefully appraised as to both value and ease and quickness of sale.

Trade-marks, Patents, Good Will, etc.

Some or all of these items grace the statements of many borrowers. While possessing a positive value as long as the company is a going concern, their liquidation value is likely to be nil. There are exceptions. To take a concrete case, the makers of Ivory Soap could probably realize substantially on the sale of the name, which is the trade-mark, even if all tangible property of the concern were destroyed by fire with no insurance. The value of this trade mark has been built up in large measure by heavy advertising over a long period of years and that fact would in itself justify the lending banker in allowing the borrower to place a relatively high valuation on the trade-mark as an asset.

[1] Journal of the Canadian Bankers' Association, Vol. XXIII, No. 4, July, 1916.

Trade-marks are probably easier of satisfactory appraisal than patents, copyrights and good will. Nevertheless bankers are not infrequently influenced favorably by the known existence of value attaching to such assets as we have under consideration, even though they are listed at only nominal valuations. Many concerns of high class credit standing give evidence of their conservatism by carrying some, if not all, of this group of items in the balance sheet at a purely nominal figure. A case in point is the General Electric Company. Other concerns take full advantage of the vagueness and indefiniteness with which these intangible assets are surrounded. When having little or no value at all, the items may be placed on the books at a high valuation in order to offset a certain amount of liabilities. Patents, trade-marks, good will, and copyrights, when swollen in size, put the credit man on guard.

Deferred assets, such as taxes paid in advance, insurance premiums, and organization expenses make only a casual claim on the credit man's attention. Certainly taxes paid are not likely to be returned to the business of the taxpayer, however prosperous that business may be. It might be legally possible to recover a part of insurance premiums in the event of liquidation, but the amount would be small in any case. Organization expenses are assets in a technical sense rather than actually,—assets that the banker likes to see dwindle and disappear within a few years after the enterprise has been launched. Appraisal of deferred assets is about the least of the credit man's troubles.

Life Insurance

Increasingly banks are including in the blank statements furnished their borrowing customers one or more questions as to life insurance.

Life insurance is not infrequently used to support the element of moral hazard. Even insurance that does not carry with it cash value upon surrender is looked upon by bankers as excellent credit support under certain circumstances. If the borrower is a man of known integrity and ability, but without capital, term insurance or insurance in other form on the life of the applicant for a loan may be acceptable to the banker in lieu of capital. In the event of failure of one project, insurance on the life of the borrower enables the banker to await with confidence the outcome of another more successful venture. By the same token life insurance is in many cases a satisfactory substitute for endorsement. Men with otherwise excellent prospects of success and entitled by character to great confidence would be barred from a successful start and advancement in business but for this form of support or endorsement.[1] It is just as essential to credit when great reliance is placed on the integrity and business capacity of the borrower as is fire insurance where the chief reliance is on the value of merchandise or other similar assets. As most unsecured loans ought to rest on all three bases of capital, capacity, and character, it follows that life insurance in being employed as a foundation of credit serves a

[1] William T. Gage, *Life Insurance as Collateral*, Proceedings, Twenty Seventh Convention, Michigan Bankers' Association, 1913, p. 129.

useful and proper purpose. Life insurance is contingent capital.

Policies are now being written, frequently in large amounts, to cover losses contingent upon the death of partners, the managing geniuses of corporations, inventors connected with business enterprises and others upon whom success is largely dependent.[1] The death of a member of a firm may involve, not only the loss of his active coöperation in the management, but also the withdrawal of his capital from the business. Bankers often, in checking corporations and firms selling paper in the open market, find the suggestion that this or that banker, owing to the death of the founder or manager of the business under investigation, has discontinued purchasing its paper until such time as the new organization will have shown its ability to manage its affairs successfully. The situation would be materially improved, if in response to the banker's inquiry, he were informed that the company, while losing a capable officer, had collected a large amount of insurance.[2]

Life insurance is a stabilizing force, destined more and more to reduce and absorb the shocks of those financial vicissitudes to which business is everywhere subject.

[1] A. Barton Hepburn, *The Relation of Life Insurance to the Credit Fabric of Business*, An Address delivered at the Eighth Annual Meeting of the Association of Life Insurance Presidents, New York, December 10, 1914, p. 6.

[2] W. W. Smith, *Necessity for Credit Statements and Desirability of Uniformity Thereof*, Proceedings, Forty Second Annual Convention, American Bankers' Association, 1916, p. 519.

We have dwelt at length on the treatment of the assets side of the borrower's balance sheet because there concealed are most of the banker's pitfalls. What a borrower's assets amount to is, as we have seen, largely a matter of appraisal. His liabilities, on the other hand, need only to be fully listed in order to be accurately known. The discussion of the borrower's liabilities, as viewed by the banker, may therefore be put into brief compass.

CHAPTER IX

The Bank Borrower's Statement:

Liabilities

Liabilities have already been classified and we may pass at once to their analysis and interpretation, following the order of the liability items of the balance sheet given near the beginning of the previous chapter.

Bills Payable for Merchandise

This item should normally be small; otherwise it would indicate failure to take discounts. Such failure might be traceable to carelessness, overtrading or backward collections,—in any event an unfavorable indication. In certain trades like the lumber, building trades, some branches of the tobacco business, etc., it is customary for the buyer to give notes in settlement of accounts. Unless it is the custom of the trade to settle in this way, bills payable, if large in amount, are an almost certain sign that the concern is "skating on thin ice."

Bills Payable to Own Banks

It is a distinctly unfavorable sign if a firm borrowing heavily from a bank allows its bills to run to maturity or past maturity. Cautious bankers make trade investigations and revise their credit files every six months or every year; and if they learn, as a result of

inquiries, that their borrowers are not taking advantage of the best trade discounts, the matter is brought to the attention of borrowers at once. There are times of course when abnormal business conditions prevent the banker from being exact in enforcing this rule. Usually its enforcement is prompted by good banking and business logic.[1]

It is advisable for the banker to know the maximum amount borrowed from all sources during the previous fiscal year because most concerns close their books and make up annual statements between seasons when their business is employing a minimum of borrowed funds, or none at all. Between the dates when liabilities are at a maximum and at a minimum, the proportion of quick assets to current liabilities changes markedly.

Bills Payable for Paper Sold

Many cases have occurred in recent years, notably a decade ago, where borrowers discounted their paper through note brokerage houses and deliberately omitted from their statements an appreciable part of such liability. This deceptive practice has been checked, chiefly, by more painstaking work on the part of bank examiners. Clearing house bank examinations have been particularly effective in checking this practice. Although the clearing house examiner does not come in touch with paper held by outside banks, the borrower can never tell when the brokerage house or possibly

[1] Joseph B. Martindale, *The Business of a Commercial Bank and How to Safeguard the Investment of Its Funds*, Proceedings, Thirty-Seventh Annual Convention, American Bankers' Association, 1911, pp. 702, 703.

country bank may resell paper to one of the banks over which the clearing house examiner has supervision. There is at least a moral effect.

Open Accounts

Bankers should ascertain how the amount of accounts payable is ascertained. When this item is small it may be explained by the bookkeeping practice of keeping no record of the accounts payable until the accounts are paid. The item, under those circumstances is placed on the statement at an estimated amount, which may not fully represent this class of indebtedness at the statement date. Accounts payable may also be reduced in the statement as a result of the bookkeeper placing no bills upon the books until they have been audited and approved.[1]

It is not an uncommon practice to offset accounts payable by accounts receivable. When a statement is made showing accounts payable net, after deducting certain of the receivables there has been a misrepresentation. A liability almost invariably represents one hundred cents on the dollar, but an asset represents only what can be realized on it. Any offset of liabilities against assets is misleading unless that offset is clearly shown in the statement. In the same category should be placed such accounts as represent, for example, investment in foreign branches. The statement may reveal only the net investment, whereas to be of positive value both the assets and liabilities should be given.[2] This practice, while apparently not

[1] Frederick H. Hurdman, *op. cit.*, p. 476.

[2] *Cf. op. cit.*, p. 471.

changing the net worth of a concern does give its statement an improved appearance. Many borrowers believe, with some reason, that they have presented a stronger statement when they show assets of, say, $150,000 with nominal liabilities than if they showed assets of $200,000 and liabilities of $50,000.

Chattel Mortgages

The existence of a chattel mortgage is so evidently an unfavorable sign as scarcely to deserve emphasis. "Indebtedness for back rent or a chattel mortgage on fixtures or horses and wagons is a sure sign of financial weakness."[1]

Bonded Debt and Interest Thereon

With reference to bonded debt and interest thereon the banker should know, among other things, the redemption date and the amount of interest accrued. The early maturity of a mortgage or mortgage bonds should not escape attention, especially if the prospect of renewal or refunding is unfavorable. If the redemption date of the bonds is near at hand and provision for their refunding doubtful the banker may feel justified in regarding the principal as a current liability. Accrued interest, when it amounts to a large sum, is obviously a clear sign of weakness. Sinking fund provisions which have not been lived up to represent unquestionable impairment of strength.

[1] Herman Flatau, *Financial Statements, Their Form and Analysis, in Mercantile Credits*, A Series of Practical Lectures delivered before the Young Men's Christian Association of Los Angeles, California, 1914, p. 78.

Whether a borrowing concern has mortgage bonds outstanding or has borrowed on the simple security of real estate pledged by mortgage, the bank credit man usually scrutinizes the indenture in order to ascertain whether the instrument covers the land and buildings only or machinery, stock of goods, and other chattels, also. He is never pleased to discover that the mortgage overlaps and includes such free assets as equipment, or merchandise and cash. Whenever such a mortgage exists the liquidation claims of the lending bank, like those of other general creditors, are weakened. A thin equity should put the credit man on guard against the possibility of an overlapping indenture.

Deposits of Money with Us

This item is a very important one. Deposits of this nature are usually made by the families of members of the firm or by employees,—in either case interest is almost certainly paid upon the amount deposited. Whatever representations the bank borrower makes as to the likelihood of such advances never being withdrawn, the conservative banker will commonly regard such an item, if large, as pregnant with uncomfortable possibilities, inasmuch as these deposits are advanced by persons who would be in a position to learn of impending disaster before any of the other creditors and in time to secure the necessary preference for their own protection. Here is a case in point. A firm failed, paying fifty cents on the dollar, it being more than suspected that a number of women,—members of the family,—who had advanced money, had been just

previously to the collapse of the concern paid off or secured at the expense of the other creditors.[1]

The contention of many business men that the appearance of large deposit accounts in the statement indicates additional security, as those closely interested are shown to be willing to entrust their money to the concern, loses its force when we remember that those closely associated with the managers or principals may be in a position to scent danger earlier than the banker and other creditors and, having secured the repayment of their own advances, place the burden of the enterprise, weakened by the withdrawal of the "deposits," on the shoulders of the bankers and general creditors.

Other Liabilities

Other liabilities not mentioned in the list on page 163 may be very varied. Accrued, deferred and contingent liabilities alone seem to call for comment.

Some bankers treat contingent liabilities, which usually arise from endorsed and discounted notes receivable or endorsements for accommodation, as a part of the borrower's current liabilities. To do so where such contingent liabilities are heavy changes the ratio of quick assets to current liabilities very unfavorably to the borrower. Let us suppose a borrower presents a statement showing

Quick Assets.....	$200,000	Current Liabilities.....	$ 50,000
Permanent Assets.....	200,000	Permanent Liabilities..	350,000
	$400,000		$400,000

[1] William Post, *Analysis of Borrowers' Statements*, Journal of Accountancy, Vol. I, No. 3, January, 1906, p. 189.

The borrower would have, according to this statement, a ratio of quick assets to current liabilities equal to 4:1. If a bank loaned the maker of the statement $50,000, the ratio of quick assets to current liabilities would be 2½ to 1, a ratio that is commonly regarded as safe. If contingent liabilities amounting to $150,000 arising from customers' notes discounted are discovered, however, the face of the statement becomes changed decidedly for the worse; if the contingent liabilities are looked upon as an addition to the current liabilities, the ratio of quick assets to current liabilities would become 1 to 1. Some bankers are inclined to treat contingent liabilities as we have done here, although it is an extremely conservative practice.

Accrued liabilities, corresponding to accrued assets, are exemplified by wages payable, taxes payable, rent payable, interest payable. Deferred liabilities differ from accrued in being paid finally, not in cash, but in services or commodities,—in product. Milk tickets outstanding in the hands of customers and for which payment had been received by a dairy company would stand for a deferred liability of the company. Prepayments in connection with services or products give rise to deferred liability items on the books of the concern receiving the payment. Deferred liabilities are distinctive but generally of less importance to the lending banker than accrued liabilities.

The absence of accrued liabilities in the statement may usually be taken as evidence that the accounts of the concern have not been accurately kept. Where accruals for taxes, interest, rent and other items appear, an effort, at least, may have been made to ascertain

exactly the operating results of the period under review and the condition of the affairs of the concern at the date of statement. The discovery only after investigation that taxes or interest in large amount, but not mentioned in the statement, are soon to fall due is not calculated to inspire confidence in the banker as to the security of the loan sought. Although it is frequently asserted that no liability should be set up for such items as interest, taxes, and rent until they fall due, the conservative and correct practice is to make these items accrue regularly so that the earnings and financial condition may be stated accurately.

Capital and Surplus, Proprietorship Interest or Net Worth

A business corporation as well as a bank ought to have a capital sufficient to support its volume of business. In national and most state banking corporations capital is more highly protective to depositors and other creditors than is surplus because of the double liability of stockholders in those institutions. In business corporations, where limited liability of shareholders generally prevails, surplus, as long as it exists, affords protection in the same degree as does capital. It is an interesting commentary on the question of the existence of actual surplus in American corporations that of those whose securities are listed on our foremost stock exchange and selling below par over long periods of time a great majority show *book* surpluses. It must be evident that surplus can be easily manipulated simply by changing the valuation of items in the balance sheet.

When the borrowing concern is an individual or a partnership, capital and surplus combined take the form of net worth. Relatively small net worth may be fully offset occasionally by other and outside resources of the borrower. The reader will of course have in mind the fact that limited liability does not commonly pertain to the partnership. But whether the application for a loan comes from a corporation or some other form of business organization the lending banker, if conservative, must insist on a satisfactorily large capital investment and protection. Lack of capital entails constant strain on the borrower and renders him a prey to adverse business, credit, or collection conditions.

Ratio of Quick Assets to Current Liabilities

Credit men are even more concerned about the ratio of quick assets to current liabilities than they are about the net worth or capital and surplus of the applicant for a loan. Net worth may be very great but in the form of slow assets. The banker fails to safeguard the interests of his depositors and shareholders unless he uniformly insists on a safe ratio of quick assets to current liabilities. What constitutes a safe ratio varies from case to case, but hovers around 2 to 1, after the desired loan has been included. Allowance for a shrinkage of 50 per cent is generally regarded as sufficient and when the moral risk is exceptionally good, earnings highly satisfactory or slow assets relatively large, a ratio of very appreciably less than 2 to 1 may be acceptable. Departure from the 2 to 1 rule is very common.

Relation of Net Worth to Credit Worth

What is the proper and safe relation between net worth, the proprietorship interest, or capital and surplus on the one hand and *credit* worth on the other? It is maintained in banking circles that unsecured loans should not be made greatly to exceed one third of the net worth, where the banker is well acquainted with the business, ability, and morals of the borrower.[1] Nevertheless the ratio varies widely from banker to banker and from borrower to borrower. Even the bank balance maintained by the applicant for a loan will be one of the determining factors. No hard and fast rule can be laid down.

[1] Robert A. Parker, *Practical Credit*, Bulletin of American Institute of Bank Clerks, Vol. VI, p. 354.

CHAPTER X

The Bank Borrower's Statement: The Income Account

Although the asset and liability statement is sometimes submitted with an application for credit, without a statement of income and expenses, the latter is of indispensable value to the credit man in reaching an intelligent decision. The one mirrors a condition on a given date; the other shows how that condition was achieved, and indicates the trend of the business, whether favorable or unfavorable. Deficiencies in the balance sheet may be outweighed by substantial and steadily growing profits reflected in the income account. A thriving business with growing profits is a more satisfactory credit, even if the ratio of quick assets to current liabilities is comparatively low, than a concern showing a liberal margin of assets but with a dwindling profit and loss account. One is growing constantly stronger, the other less and less desirable as a risk. One inspires confidence, the other apprehension.

Many applicants for loans who submit balance sheets are still reluctant to include a statement of profit and loss account, and some compromise by giving merely the final net profit (or loss). A complete profit and loss statement ought to be obtained and carefully scrutinized because of the light it may throw upon the items in the balance sheet. The banker

must make sure that the credits do not represent sales of assets. Let him also compare the debts with previous statements in order to check the omission or reduction of charges like depreciation, a practice sometimes resorted to in order to make a creditable showing of earnings in poor years. "The capitalization of repairs and maintenance pads the profits as well as the permanent assets accounts." [1]

A condensed profit and loss statement or income account of the following character contains the main items of expense and income:

Expense

Cost of material or merchandise consumed	$.....
Actual expense of conducting business:	
Including rent, taxes, insurance, etc	.....
Salaries paid to officers	.....
Interest on borrowed money and bonds	.....
Bad debts charged off	.....
Depreciation charged off	.....
Net profits	.....
Total	$.....

Income

Net sales	$.....
From investments	.....
From discounts on purchases	.....
From other sources	.....
.....	.....
.....	.....
.....	.....
.....	.....
Total	$.....

[1] Clay Herrick, *Borrowers' Statements and the Rulings of the Federal Reserve Board*, Proceedings, Twenty-Fifth Annual Convention, Ohio Bankers' Association, 1915, pp. 51, 52.

Items among the expenses that call especially for comment are expenses of conducting the business, salaries paid officers, and depreciation. The others are self-explanatory or scarcely call for comment.

The actual expense of conducting the business is an index of capacity and is closely watched by the careful credit man. Large banks with well equipped credit departments, having several customers engaged in the same line of trade or manufacture, are able to compare this item advantageously to both the bank and the borrowing concerns whose expenses are relatively high.

The cost system of the borrower should receive very special attention, "for it is in the cost system that money is most generally made or lost."[1] Without a well developed cost system a borrower cannot have a thorough grasp of his business.

Insurance

Insurance is an item that does not escape the banker's attention. The banker looks upon failure to insure adequately with great disfavor for two reasons: such failure jeopardizes the safety of the credit extended and also indicates a lack of business capacity on the part of the borrower.

Salaries and Cash Withdrawals

Salaries paid to officers deserve scrutiny. If salaries paid represent amounts withdrawn from a business by

[1] Thomas J. Kavanaugh, *Essentials in the Granting of Bank Credits, Principles and Methods which Should be Observed*, Trust Companies, Vol. XXIII, No. 2, August, 1916, p. 120.

its members for living expenses, such withdrawals may throw strong light on the moral risk. High living has a doubly unfavorable action. There is an actual and perhaps serious danger to the *stability* of the business occasioned by the withdrawal of funds to meet the expenses of an extravagant mode of life, and in addition high and reckless living may invite heavy costs in defending suits or in satisfying court judgments or decrees.

Depreciation

Depreciation is a cloak that may conceal the source of "unearned" profits. The smaller the amount allowed for depreciation the greater the book profits. Accordingly, the banker needs to compare depreciation year after year in order to assure himself that adequate and reasonably uniform provision is made for the wear and tear and obsolescence of plant and equipment. If the plant is overworked a heavier charge should be found in this item.[1]

Where liberal amounts for depreciation are charged off over long periods and when betterments and extensions are charged to operating account rather than to capital account the earning power of the concern tends

[1] It is easy for the bookkeeper to create "book" profits. If the business of the borrower has been below normal in results a portion of what should be placed in operating accounts, such as repairs or renewals, may be charged to a building or fixture account. The method or basis of inventory may be changed, the inventory item and net worth inflated. The amount set aside for bad debts may be reduced. These and other ways of manipulating the statement may be employed to demonstrate that a thriving state of affairs exists when the opposite condition really obtains.

to grow in relation to its capitalization. Many New England cotton mills have followed this policy to such an extent that the value of their output is frequently several times their capitalization. As a result they have distinctly enhanced their credit position. New England cotton mill paper has long sold at comparatively low rates and has been regarded highly by the banks. The mills have been able, on account of their easy financial condition, to take advantage of the market from time to time either in buying raw material or in disposing of the manufactured product. The location of the mills, also, has been partly responsible for the low rates at which money has been placed at their disposal. The New England mills are geographically a part of the great money centers, a circumstance that promotes a close personal acquaintance between the mill and the banker, enabling the banker, moreover, to investigate more easily the condition of the mills as prospective borrowers.[1]

Packing companies and other companies such as shoe, clothing, and other manufacturers permanently located are governed in their depreciation charges by the appreciation or depreciation in real estate, the life and cost of up-keep of their buildings, machinery, etc.; but there are other companies such as those manufacturing timber products that are further controlled by the supply of raw material in their territory and it usually becomes necessary for such companies to write off their entire plants in time to cost of production as it

[1] Daniel G. Wing, *New England and South Carolina*, Proceedings, Fifth Annual Convention, South Carolina Bankers' Association, 1905, pp. 48, 49.

does not pay to move them when the supply becomes exhausted. With such companies it is usually calculated that their plants should not exceed one dollar per thousand feet of timber owned by them. However, in some cases where large supply of custom timber is available, such a rule should not rigidly apply. In shoe companies and printing companies, etc., depreciation of machinery through wear and tear and obsolescence is severe, and it should be ascertained whether or not write-offs are commensurate. Depreciation ties inventory for place of first importance in a financial statement. They are the two magnitudes the exact status of which it is hardest to ascertain and many borrowers fool both themselves and their banks in both items.[1]

Sales

Few items in the income account are more significant than that of sales. The volume of sales divided by the inventory, in the case of a mercantile concern gives the rate of turnover and turnover in any given line of trade is an excellent index of the quality and character of the inventory itself. We say any given business because the turnover varies decidedly from business to business. A staple business handling stock easily replenished like a wholesale grocery would have to carry no more than two or three weeks' sales. A retailer of furs on the other hand would show, if mak-

[1] Thomas J. Kavanaugh, *Essentials in the Granting of Bank Credits*, Trust Companies, Vol. XXIII, No. 2, August, 1916, pp. 119, 120.

ing his statement in October, an inventory almost equal to his year's business.[1]

Again, a comparison of sales and accounts receivable enables the credit man to determine the age of the latter. Where merchandise is small and accounts receivable large there is an indication of slow collections, of stale accounts. In such a case the credit man will likely insist on a high ratio of quick assets to current liabilities.

Net Profits

In comparing the net profits of a concern from year to year or period to period, the banker expects to see improvement but not necessarily improvement every year. In fact it inspires confidence in the truthfulness of the showing if a year or two are found when conditions precluded the probability of profit in the given line and the statement reflects those conditions. An unbroken symmetrical gain should put the banker on his guard. Too much money made in a single year may in some instances suggest speculation.[2]

Collateral information relative to earnings is always illuminating. Mr. Clay Herrick[3] cites the case of a company that showed a statement of such character that on it as a single basis any banker would have been tempted to advance funds freely. Assets were large,

[1] F. B. Snyder, *Credits*, Money and Commerce, February 17, 1917.

[2] F. W. Crane, *Commercial Paper Bought from Brokers*, Thirty-sixth Annual Convention, Illinois Bankers' Association, 1916, p. 138.

[3] Clay Herrick, *Borrowers' Statements and the Rulings of the Federal Reserve Board*, Proceedings, Twenty-fifth Annual Convention, Ohio Bankers' Association, 1915, p. 52.

net worth was large. Earnings for a long period had been strikingly good. Investigation, however, developed the fact that a lucrative contract which was the basis of the concern's large earnings and then flourishing condition was about to expire without possibility of renewal.

Dividends

The banker is always interested in the dividends paid by a borrowing corporation. A dividend record in itself throws some light on the earning power and credit worth of the borrower—after the banker has assured himself that the dividends paid have been justifiable. On the other hand dividends create a void to fill which the banker's advances may be sought. Dividends may be much less than earnings and still be improper. If the earnings of a corporation for a given year are $100,000 and during the same period $50,000 are turned into improvements, and the concern at the end of the year pays a dividend of $100,000, the working capital has been impaired by $50,000. Fixed capital has been increased and sooner or later additional fresh *working* capital is almost certain to be needed, in order to keep the working or liquid capital of the concern up to its normal proportion to fixed. Unless the banker is careful he may advance funds to pay dividends or meet withdrawals by partners and it may turn out that such dividends or cash withdrawals are being invested in another or other enterprises in which the borrower has a greater and growing interest.[1]

[1] *Cf.* Frederick H. Hurdman, *op. cit.*, pp. 477, 478.

The Borrower's Capacity

The banker scrutinizes the borrower's statement in order to discover evidence of good or bad management, and naturally enough his attention is directed chiefly to earnings. Earnings that are known to the banker to be real and legitimate over a long period constitute a satisfying index of capacity. Where this criterion is lacking, owing to the youthfulness of the concern or to other factors, the credit expert attempts to acquaint himself with the technical side of the borrower's business. If the borrower is known to be lacking in a knowledge of the technical requirements of his business or weak in administrative capacity the credit risk will be clouded.

The cautious banker also looks well into the character of the assets of the borrower. Clean fresh and salable inventory is a favorable indication. The mismanagement that causes failure is nearly always reflected in the character of the assets of the bankrupt.[1]

The information that the banker gains concerning the capacity of the borrower comes in part from reading between the lines of the statement, and in part from independent investigation. The interview, where that is practicable, is also of value.

From what has been said in this chapter and the two preceding, three main facts stand out. The first is that the banker is primarily interested in the ratio of the borrower's quick assets to his current liabilities. The second is that the borrower's net worth or "capi-

[1] A. C. Foster, *Bank Credits*, Bulletin, American Institute of Banking, Vol. II, p. 237.

tal," while not of immediate interest to the banker, is nevertheless of vital interest to him inasmuch as he may be compelled to fall back upon the excess of assets, however slow they may be, over liabilities in the event of misjudgment or mishap. The third is that if statements over a considerable period show reasonable net profits, provided there has been no sudden unexplained swelling of the plant account, no abnormal increase in the merchandise account or other similarly fictitious profitmaking expedients, the presumption is highly favorable to safety.[1] Whether a borrower does or does not submit a statement, the banker attempts to uncover these basic facts before making a loan. In order to do so he does not rely solely on the borrower's own written or oral statement. The modern banker supplements and verifies or disproves the contents of the borrower's own statement by an investigation the thoroughness and extent of which would frequently be a surprise to the subject investigated. Even many country banks are now building up credit files, the contents of which are in part traceable to the direct investigation efforts of the country banker himself, and in part to the liberality of his city correspondents. We shall consider in the next chapter the nature of this supplementary but essential and illuminating investigation of the borrower's credit worth. It is in place, however, before passing on, to point out the benefits of rendering a statement to both banker and borrower, and the significance of the borrower's refusal to render a statement.

[1] *Cf.* H. A. Wheeler, *Credit Information*, The Financial Age, Vol. XXII, No. 23, November 14, 1910, p. 1164.

Reciprocal Benefits of Bank Borrowers' Statements

The interests of the banker and his borrowing customers are, or should be, very closely allied; whatever benefits the borrower benefits the banker in turn. The direct benefits to the bank of the practice of borrowers rendering statements are obvious. The indirect benefits, those derived through the improvement in the credit risk of the borrower which flows from making a statement, particularly an audited statement, are probably equally great. The benefits or advantages accruing to the borrower and indirectly to the banker as the result of rendering periodical statements may be stated categorically.

1. The very fact that such statements are to be made annually and submitted to one's banker doubtless has a tendency in many cases to cause the more ambitious men to go a little more slowly in extending their business than would otherwise be true,—a circumstance that tends to enhance the safety of the banker's interests and at the same time save the borrower from financial distress, if not failure. Careful analysis of statements is beneficial in repressing the too buoyant but honest optimism of some concerns.

2. In the furnishing of credit statements, it gives the banker a good understanding of what borrowers are doing, and makes it possible for him to give advice at times which may be helpful. Even though one may not be for the moment a borrower, we believe it well that he voluntarily supply his banker with a carefully prepared financial statement of his condition, for, added to the benefit which would probably come to

him as the result of a careful study of the details of his business in the preparation of the statement, is the decided advantage of the close contact and relationship thus established between the two parties. Business men are being inquired about constantly as to their financial responsibility by other men in business, and the banker is a frequent source of information.

3. In order to make a statement that is true and correct and do it readily, a borrower's accounts must be conducted so as accurately, plainly, and minutely to set forth the business done from day to day, and the possession of such a record is of great assistance to the owner or manager in discovering leaks, or troubles leading to losses. Large losses are often sustained, especially in an active business, because of the lack of knowledge on the part of the responsible head of the details of his business. A representative of a large manufacturing concern once said that "his company experienced no difficulty in competing with well-managed companies, who fully understood their business; the most vexatious problems being competition with those manufacturers who kept on making money until they reached bankruptcy."[1] The banker or credit man may at times, in analyzing the data submitted, perform, in a measure, an auditor's service for the borrower. A business man unfamiliar with accounting and the interpretation of accounting facts may be disillusioned by his banker. Let a Detroit banker give us a concrete illustration:

[1] R. A. Long, *Necessity for Credit Statements and the Desirability for Uniformity thereof*, Proceedings, Forty-second Annual Convention, American Bankers' Association, 1916, p. 530.

A customer gave his report to us in January; I looked it over, compared it with his previous statement, and he appeared prosperous; but in looking it over more carefully, I discovered a greater volume of business, but a lesser volume of profit, and in going still further I found a leak apparently in his expense account. I sent for him and . . . said, "Joe, you don't seem to have done very well last year." "Yes, I did a good business, . . . twice as much as last year." I said, 'You didn't make as much money." "Yes," he said; but upon investigation we found he had been losing money, by the old bookkeeper. We finally got him straightened out, and I think he will make some money this year, and that was simply because I cautioned him. He was not paying close enough attention to his business, and the old statement he filed with us was really valuable to him and valuable to us in showing the condition of his credit.

When a borrower complies with the request of his bank for a statement it frequently gives him an interest in his affairs that he never had before. He takes pride in rendering another statement the next year, particularly if he is prospering and is the right kind of a borrower.[1]

Significance of Refusal to Render Statement

Some firms dealing with even city banks do not make statements from fear that their actual condition would become known and be a disappointment to those who consider their position and business to be better than it actually is. On the other hand, the fear may

[1] W. S. Weston, *The Credit Department of a Country Bank*, Proceedings, Sixteenth Annual Convention, Nebraska Bankers' Association, 1912, p. 34.

be that their condition would be found too prosperous and invite others to enter the business and compete. In these instances there is no defined rule to be laid down as to the extension of credit. All the circumstances must be taken into consideration and the case decided on its merits. It is the testimony of an experienced New York banker that more often, when a man refuses to make a statement, it is because he dare not rather than from fear of showing too much prosperity.[1]

There are, however, many cases where some of the best concerns in the market have never made and never will make statements of their affairs. Some of the choicest names in the New York market whose paper the banks do not hesitate to buy in large amounts, or to discount liberally, are those of concerns that refuse to make even so much as a statement of the amount of capital invested. They are, nevertheless, known as very reliable and able concerns that have been in business for many years. Their names stand for integrity and honor; their methods are believed to be sound and correct.[2]

In general it is the safer practice for the banker to avoid the glamour of great names and great concerns that refuse to exhibit a condition of their affairs. A concern that is financially strong will almost invariably

[1] Robert A. Parker, *Practical Credit*, Bulletin, American Institute of Bank Clerks, Vol. VI, p. 353.

[2] Joseph B. Martindale, *The Business of a Commercial Bank and How to Sagefuard the Investment of Its Funds*, Proceedings, Thirty-seventh Annual Convention, American Bankers' Association, 1911, p. 702.

court investigation.[1] Where an applicant for a loan refuses to make a statement or give credit information the way in which the refusal is made may be a clear indication of his condition.

[1] Lowrie C. Blanding, *The Study of Commercial Credits*, Proceedings, Eleventh Annual Meeting, Iowa Bankers' Association, 1897, p. 38.

CHAPTER XI

Investigating the Credit Risk

As we have observed, the purpose of the banker in asking the borrower to submit a statement, whatever form that statement may take, is to discover the truth concerning the business condition of the applicant for credit. The measure of truth revealed by a statement depends upon several factors. If the borrower is honest and has good judgment of values in his business his statement is valuable. If he has bad judgment even honesty and veracity lose their force. If he has neither honesty nor good judgment his statement is valueless. Where honesty and good judgment of values are coupled with adequate accounting machinery even the uncertified statement of the borrower may be looked upon as a sound basis of credit negotiation. Such a borrower, thoroughly understanding his own affairs, relieves the banker of much responsibility. Danger is sighted in time to prevent loss to borrowed capital.

But the banker never knows without investigation whether the borrower's oral or written statement is true or false, or, better perhaps, to what extent it is true and false. The task of the banker is to find the facts concerning the borrower's affairs and character and then from those facts reach a sound conclusion as to the payment or non-payment of the amount which the borrower hopes to obtain. Accordingly an effort

is made, through tapping a large number of sources of information, to supplement and to test the borrower's estimate of himself, an estimate that experience has generally shown to be too high.

Handbooks as a Source of Information

Banks having large and active credit departments utilize trade reference works, which are valuable in "routing" investigations as well as for the information they contain. The Textile Trade Directory, for example, contains the names of most, if not all, of the manufacturers of textiles in the United States together with a brief description of the property, names of officers, a list of concerns handling raw materials used by the manufacturers, and the names of wholesalers and jobbers throughout the country. Corresponding handbooks for other trades are used in a similar way. Among such books the bank directory also has a prominent place.

The Mercantile Agencies

Every bank of importance is a subscriber to Dun's and Bradstreet's. The rating books of these mercantile agencies and their special reports, although inadequate and not always in accord with the facts, are of more than merely confirmative value. The agency reports frequently throw flashes of light on the character of the management, giving facts as to age, fires—not unimportant,—litigation, and failures, and may throw out hints as to methods of pay.[1]

[1] F. W. Crane, *Commercial Paper Purchased from Brokers*, Proceedings, Thirty-sixth Annual Convention, Illinois Bankers' Association, 1916, p. 135.

The Trade

Probably the most important single source of information for the banker is the "trade." Checks and drafts passing through the bank give the names of houses with which the depositor deals and these houses are a source of information as to how accounts for merchandise are taken care of.[1] As the "trade" is one of the main sources of credit information, it follows that a great commercial center like New York would afford superior information facilities and possibilities.

Even the class of firms from whom goods are bought is an excellent index of the credit standing of the buyer. A poor credit risk may possibly do business with one or two first-class houses, but it will be difficult to do business with a half dozen or dozen houses of a high order, as houses that investigate the credit standing of their customers are not likely to sell to those of doubtful reputation. In other words, if a dozen mercantile credit men pass favorably upon the subject after looking him up thoroughly, the chances of all being led astray are very remote. Consequently the applicant for a loan who deals in the regular way with a number of first-class houses has that circumstance distinctly in his favor.[2]

Mercantile credit men are generally very willing to answer the questions of the outside man representing the bank. To an experienced credit man the ques-

[1] S. R. Flynn, *A Twentieth Century Credit System*, Proceedings, Thirteenth Annual Convention, Michigan Bankers' Association, 1901, p. 31.

[2] J. G. Cannon, *Credit, Credit-Man, Creditor*, Bankers' Magazine, Vol. LIII, July, 1896, p. 39.

tions of the bank man are of great value. He often wants to know from what source they emanate and precisely why they are made. The mercantile credit man may often receive more information than he imparts.[1] "Scanty fare for one will ofttimes make a royal feast for two." Both bank and mercantile credit men do not regard their knowledge and ideas as their own individual property. Of course information given a bank by a borrowing customer is generally treated by the bank in a reasonably confidential manner.

The credit man and the outside men should be good investigators, capable of asking the right questions. In illustration of this point may be mentioned a case where a credit man called upon the head of a firm to secure information regarding a certain concern. When asked if he sold to this concern, the head of the firm being interviewed replied, "Without limit." It occurred to the inquirer that it might be advisable to ask the terms upon which the goods were sold, and the response was, "Always for cash."

The successful credit investigator is a patient inquirer, always preferring to wait rather than interrupt. Having secured an audience with the credit man or the person attending to the credit of the house, the investigator will tactfully ask such leading questions as:

Do they pay their bills promptly?

For what length of time do you give them credit?

How long have you been selling to them and do they buy largely from your house?

Do you think their expenses are heavy?

[1] *Ibid.*

Do you think they are making money?

Have you heard anything said about their responsibility or character?

It need scarcely be said that the investigator will not be satisfied with equivocal or fragmentary information and a considerable number of inquiries may have to be made before convincing and decisive facts are got. The credit man wants to know whether the statement tells the truth and accordingly presses to the fore his inquiries concerning the moral hazard.

The trade expert plays a rôle in connection with the work of the bank credit man that has not been appreciated fully. The credit man of the bank goes to a certain point in the analysis, applying the principles with which he works familiarly and then turns to his trade acquaintances for information that constitutes the finishing touches—to men who have made a life study of the particular line and whose "sensitive finger-tips are at all times upon the pulse of trade forces." The banker's field of necessity covers such a wide range in credits that he cannot apply the closest tests based on daily or weekly advices coming to the trade specialist, whose channels of information have been built up and preserved with the utmost care through a period of years.

One of the trade opinions that the banker has learned to prize highly is that of the mercantile expert who sits at the table in the board room of the bank. This man has a dual responsibility which he quickly measures. He knows whether it would be advisable to extend a merchandise credit when he is reasonably sure the account would be discounted and the profit a good one, and he also knows whether to recommend the concern's

note for discount at his bank on long time and at a low rate. He may favor one and oppose the other.[1]

Bankers sometimes inquire for information, in the case of paper offered by brokers, directly of the concern the purchase of whose notes is under consideration. Such inquiries, whether concerning mortgage debt or some other matter, may be intended only as "feelers," and to satisfy curiosity as to what manner of men the makers are.[2]

Banks

Banks are also an important source of credit information. Hour after hour investigators from other banks call to make inquiry regarding customers or concerns in whose paper correspondents of the inquiring banks are interested. Although the calling of investigators is an interruption, an opportunity is afforded to the banker to whom the inquirer comes for comparing notes and the "inquiree" may receive the benefit of information coming through channels that might otherwise be closed.

The replies of bankers to inquirers concerning the financial standing and character of their fellow townsmen can not always be relied upon implicitly, although bankers as a rule are thoroughly honest with one another; bad judgment may at times creep in and, very rarely, intentional misrepresentation.[3] Four of the leading bankers in a leading city reported that a

[1] William Post, *A Ten-Minute Ramble in Credits*, Bulletin, American Institute of Bank Clerks, Vol. VI, p. 254.

[2] *Idem*, *The Loan and Credit Department*, Bulletin, American Institute of Bank Clerks, Vol. III, p. 167.

[3] *Cf.* S. R. Flynn, *op. cit.*, pp. 32, 33.

certain manufacturing concern had good local credit standing. At that time each of the four bankers was carrying the paper of the concern and knew that it was not "an available asset." Subsequently,—perhaps after the bankers had sloughed off some of their own holdings,—losses on this paper were heavy.

The problem of the credit manager is to get an opinion of the maker of the paper from a banker who knows the risk at first hand, and this is not always an easy matter. If the maker of a note does business in Seattle and information concerning him comes from Philadelphia via Chicago and San Francisco, it may be garbled, being an indirect quotation, generally tinctured by the minds through which it has passed. Some banks attempt to protect themselves by means of a system of triple or quadruple checking through additional centers. Even then it may happen, however, that all the intermediaries are relying on one primary source, and the result may be, in essence, a single opinion.[1] Nevertheless, banks, especially correspondent banks, are storehouses of information that is scarcely available elsewhere.

Any surprise that banks should go to great lengths to secure credit information for their correspondents and in many instances for their competitors is quickly dissipated when it is recalled that in serving others, they serve themselves. Fresh information obtained is carefully recorded for possible future use, before it is transmitted to inquiring banks. Furthermore, an inquiring bank is a possible source of information and

[1] F. B. Snyder, *Credit Service*, Bankers' Magazine (New York), Vol. 88, May, 1913, p. 557.

the cultivation of cordial relations is of mutual importance and advantage.[1]

The Interview

The banker who is able to interview his borrowing customers has a decided advantage. The bank officer who interviews applicants for credit ought to be a good judge of faces and character, and to the extent that the countenance is the index of the heart, the officer may be able to tell whether the applicant is telling the truth. Mr. J. G. Cannon used to contend that a great many people talked to the bank officer or credit manager without coming down to facts.[2]

The interview affords the banker an opportunity to find out in an indirect way the borrower's notion of what constitutes honesty. Another point that commands attention is the circumstances under which the borrower started business life. It should make a difference whether the borrower's money was made by his own efforts or came to him through the assistance of friends or relatives, or through inheritance.[3] What has come by dint of hard work is less likely to be squandered or lost through reckless management than funds acquired without effort.

There is little doubt that the borrower's personality has a distinct bearing upon the decision of the bank officer when he says "yes" or "no". Hence it is desirable to scrutinize the figures presented by the borrower

[1] William Post, Bulletin, American Institute of Bank Clerks, Vol. III, p. 168.

[2] J. G. Cannon, *Credit, Credit-Man, Creditor*, Bankers' Magazine (New York), Vol. 53, July, 1896, p. 37.

[3] *Ibid.*

and come to a conclusion from an analytical as well as from a personal standpoint. Some of the best talkers and some of the most attractive personalities are among the poorest business men.[1] Accordingly, when the banker feels the personal influence or persuasive power of a prospective borrower, let him invoke the purely impersonal and cold-blooded analysis.

A banker may easily reach a conclusion concerning extending credit before the matter of figures is reached. From brief conversation the banker may make up his mind: "This is a man I don't want to have anything to do with." The banker should rely upon his intuition under those conditions, says Mr. James B. Forgan, and should not let "mathematics or science or theory or anything else change his mind."[2]

The Method of Investigation in a Particular Case

We may now profitably consider the way in which the credit standing of a given concern is investigated. Take a shoe manufacturing concern located at Huntington, Indiana. The concern has opened an account, let us say, with the Mechanics and Metals National Bank of New York, and has applied for a loan. The first step might well be to secure a report from Bradstreet's or R. G. Dun and Company, which would contain a brief record of the company. Then the New York bank would inquire of bankers in Huntington,

[1] Joseph B. Martindale, *The Business of a Commercial Bank and how to Safeguard the Investment of its Funds*, Proceedings, Thirty-seventh Annual Convention, American Bankers' Association, 1911, p. 699.

[2] James B. Forgan, *Proceedings*, Twenty-Third Annual Convention, Michigan Bankers' Association, 1909, p. 57.

with whom the concern would also, almost of necessity, maintain an account. Inquiries would also be addressed to banking connections that the concern might have in other cities. The New York bank would also communicate with banking friends, from whom close information might be obtainable, in Indianapolis, Toledo, perhaps Cincinnati and St. Louis.

The Mechanics and Metals National Bank would also have friends in the leather trade in Chicago and elsewhere to whom inquiries would be sent. Letters might also be sent to certain competing shoe manufacturers in order to ascertain the quality of the concern's product, the demand for it, and perhaps certain facts as to production and selling methods. If the Huntington concern bought raw materials and supplies in New York, the bank's investigators would canvass the houses selling the subject company.

The closest investigations are made in connection with new accounts and, as in this case, when opportunity for an interview may be lacking. Not infrequently, however, the credit man or bank officer will buy a ticket, take a train, and make a careful investigation of the personnel and plant of the concern applying for a heavy initial loan.

In addition to gathering facts on the given name under consideration the investigators, interviewing wholesalers, jobbers, manufacturers and others, also collect valuable information relative to general business conditions underlying each trade. Through this information concerning the trade and business outlook, the credit man is better able to appraise the credit deserts of the borrowing customer.

CHAPTER XII

Secured Loans

The principal kinds of secured loans made by our banks are those collateralled by stocks or bonds, those secured by warehouse receipts, and those backed by mortgages. The volume of our secured bank loans in comparison with those represented by paper unsupported by valuables pledged as security was brought out in a previous chapter. It will be in place now to present some of the aspects of the three classes of loans mentioned.

The problems of the banker in connection with secured loans, particularly those secured by stocks and bonds are, by contrast with the exhaustive investigation and analysis carried out as a preliminary to lending on unsecured paper, comparatively simple. His main concern is to see that the security taken has ample value. The important question that confronts the banker bears upon the value of the stocks or bonds offered as collateral.

New York bankers in making loans to brokers pay relatively little attention to the character or normal value of the collateral, but rely chiefly upon its value in the market. If there is an active market for a stock —New York, New Haven and Hartford, for example, which is now selling around 30—banks accept it as collateral almost as readily as a stock like Union Pacific, which is selling near 130. Elsewhere, in a

place like Baltimore, for instance, and among the country banks, the collateral value of a security is gauged by what the banker considers its "intrinsic" value. New York bankers are chiefly concerned with the resiliency of the market,—whether suddenly throwing large blocks of the given security on the market would leave it in a depressed state.[1] Bankers outside of the metropolis are more deeply interested in the wholesome character of security offered as collateral. The common stock of a prosperous Denver enterprise might be highly regarded as collateral by local bankers, but unacceptable to Wall Street banks. On the other hand, the first mortgage bonds of a great railway system which was in the hands of a receiver, but for the securities of which a broad and active market existed on the New York Stock Exchange, might readily be taken as collateral by the New York banker and looked askance at by the banker in Denver.

It is a sound practice for bankers making collateral loans to insist upon *full* security because of the treatment accorded the collateral loan in the bankruptcy courts and the legal technicalities and delays incident to realizing on this variety of loan in many states.[2] The margin required ought always of course to be sufficient to throw the burden of value fluctuation on the shoulders of the borrower.

Because of the absence of value fluctuation life in-

[1] John M. Nelson, *Securities and Investments*, Bulletin, American Institute of Banking, Vol. II, p. 477.

[2] Edgar H. Sensenich, *Some Well Founded Principles of Banking*, Proceedings, Twenty-First Convention, California Bankers' Association, 1915, p. 141.

surance policies are superior to stocks and bonds as security for loans. Such policies, it has long been recognized, are worth as collateral security whatever their cash surrender value may be, and they are freely accepted by banks as good collateral on satisfactory assignment. The surrender value is commonly stated in plain terms in the body of the policy.[1] Life insurence policies are a liquid security even in times of severe monetary stringency.[2]

Warehouse Loans

Of the vast streams of produce, merchandise, and manufactured wares of the country a certain proportion representing the surplus of the time finds its way into warehouses and cold storage establishments, where it rests until demand starts it again on its way to consumers. The banking practice of assisting merchants and traders to carry large stocks of grain and other goods when represented by warehouse receipts or bills of lading probably originated with the Corn Exchange Bank of New York.[3]

Mr. Dunham, the first president of that institution, whose familiarity with the grain trade led to the introduction of lending on warehouse receipts, used to say that such staples as wheat and cotton, wool and pork, coffee and lard were as good as gold and that he was

[1] William T. Gage, *Life Insurance as Collateral*, Proceedings, Twenty-seventh Annual Convention, Michigan Bankers' Association, 1913, p. 128.

[2] William Livingston, *Proceedings*, Twenty-Seventh Annual Convention, Michigan Bankers' Association, 1913, pp. 132, 133.

[3] Albert M. Read, *Warehouse Receipts as Bankable Paper*, Bulletin, American Institute of Bank Clerks, Vol. V, p. 5.

willing to lend gold on the pledge of these commodities as security. Preference for these staples as security has generally given way so that at present and for many years past warehouse loans have been made in less desirable lines of trade, where the solidity of the borrower has offset the disadvantage of his collateral. Grain in elevators, whiskey and tobacco in the general revenue bonded stores, silks and tea in the customs bonded warehouses, cotton in the ginneries, eggs, butter and apples in cold storage, citrus fruits, raisins, nuts, vegetables, fish, furs, wool, cloth, clothing, carpets, rugs and rubber tires,—these suggest the extraordinary expansion of the list of commodities now pledged as security for bank loans.

Several factors influence the safety of loans on warehouse receipts; the most important being the character and responsibility of the warehouseman, the financial responsibility of the borrower and the value of the goods represented by the receipts. Although the warehouseman can not be held legally responsible for contents of cases, as to either quality or quantity, nor for ownership of goods in the borrower, he is required by law to exercise ordinary care, *i. e.*, that degree of care which men of prudence exert under similar circumstances with regard to their own property, in the safe-keeping of goods called for by receipts issued. He may be held responsible also for the fraudulent issue of receipts, as in the case of the issue of two or more receipts for the same goods as well as in the case of making any statement calculated to deceive. If to the solidity and responsibility of the warehouseman and the borrower and a determination of the quantity,

quality and value of the goods by a trustworthy expert, we add carefulness and watchfulness as to changing values and markets, insurance, duties, etc., we have in mind by far the most weighty considerations affecting the safety of this growing class of loans.[1]

The commodity stored, the warehouseman, and the borrower himself,—in all three the banker, then, has an interest. Through experience bankers have become unwilling to loan on commodities stored, irrespective of the character and credit worth of the borrower and of the warehouseman. If the banker furnishes funds to enable producers or manufacturers or merchants to put their products or goods in warehouse he may thereby become essentially the purchaser of merchandise otherwise unsalable. If a full knowledge of the goods is not in the possession of the banker they may deteriorate or become unsalable seasonally.[2] Many commodities, including cotton, are subject, however, to little or no deterioration. Under reasonably good storage conditions baled cotton will keep unimpaired ten years or longer. Instances have been known where, after being stored in a farmer's barn fifteen years, it brought the current market price.[3]

Grain receipts are used extensively as collateral for loans to finance the stocks of grain carried in elevators

[1] *Ibid.*, p. 7.

[2] F. L. Lipman, *Rediscounts under the Federal Reserve Act*, Proceedings, Twentieth Annual Convention, California Bankers' Association, 1914, pp. 85, 86.

[3] Charles J. Haden, *A Plea for the Cotton Fields*, Proceedings, Thirty-second Annual Convention, American Bankers' Association, St. Louis, 1906, p. 128.

during the movement of the crop. When the receipts are pledged as collateral the borrower is expected to maintain the value of the security at ten per cent above the face of the loan. Rigid inspection, weighing, and storing practices have caused the receipts to be regarded as thoroughly sound collateral.

Cotton Loans

As soon as cotton has been picked and ginned it becomes highly acceptable as security and the banker may advance money to buyers to enable them to carry on their business. According to the usual method of lending to the cotton buyer or broker the banker requiries a cash deposit or other acceptable security at the beginning of the season adequate to protect the bank against loss from market fluctuation. The bank, retaining a safe margin as protection against loss from a sudden decline in the market price, advances a stipulated sum against each bale. The buyer, of course, has to sell as the season advances, or else, if an extensive operator, he would consume his margin in purchasing new cotton. The customary margin required is $5 per bale when cotton is selling at six cents per pound or below; $10 when selling at seven, eight, or nine cents; $15 when selling from ten to twelve cents, the same changing proportion obtaining as the price goes higher.[1]

In making the majority of these loans on cotton the banks take over order bills of lading, endorsed by the shipper and generally covering shipments to buyers in care of a compress or warehouse that receives, com-

[1] R. H. Thompson, *Cotton Loans*, Bulletin, American Institute of Bank Clerks, August 1, 1905, p. 261.

presses and stores for future delivery to spinners or for export. The compress, upon getting possession of the cotton, issues warehouse receipts in the name of the consignee in individual lots, marked and numbered to correspond to the tags and marks on each bale of cotton. The receipts are then given to the bankers in lieu of the bill of lading surrendered. The system of using receipts in one bale lots enables the banks always to claim the exact bales on which advances have been made, should the lending institution be compelled to take possession of the cotton pledged as security. This system of receipts based on one-bale lots also affords protection against the substitution of one grade for another and reduces the possibility of forged receipts.[1]

Crop Loans

Loans on growing crops may safely be made as a rule only when the crops are nearing maturity. Loans made solely on crops are very insecure, owing to the likelihood of failure. Bankers often advance the cotton grower funds with which to begin his crop, taking a chattel mortgage and usually including in the mortgage all other chattels that are a part and parcel of the farm. This additional security is demanded because the crop may be struck by drouth, flood, or other disaster unforeseen.

The banker can confer benefit on the "ground skinner" and exclusive cotton or wheat grower and at the same time increase the safety of his own interests by insisting that a considerable proportion, one half,

[1] *Ibid.*

let us say, of all loans made by the bank be invested in other lines of farming. The man with cattle and a silo, some hogs and brood mares, need not be feared when borrowing to put out cotton, wheat or other crop.[1]

Loans to farmers on cotton as sole security should not exceed 60 or 65 per cent of the value of the cotton. This percentage is a protection to both the banker and the farmer against the loan being called when the price is fluctuating. The farmer who has to borrow in excess of 60 per cent is hardly in a position to hold the cotton, and the sale of the product is his proper course.[2]

Real Estate Mortgage Security

Urban Real Estate

It is natural to think that losses should seldom if ever occur in connection with real estate loans. When they do occur the lending banker is himself frequently puzzled as to the cause. The scene for losses on real estate loans is usually set in "boom" times, when valuations tend to be too high and surroundings improperly judged. The maker of a real estate loan will reduce his losses by taking as a valuation, neither the price which the owner would be willing to pay nor the price at which it could probably be sold by the mortgagee under foreclosure on time, but the price at which it could be sold by the mortgagee under foreclosure for

[1] *Cf.* A. W. Wilson, *The Bank and the Wheat Crop*, Proceedings, Twenty-Ninth Annual Convention, Kansas Bankers' Association, 1916, pp. 103, 104.

[2] *Report of the Committee on Negotiable Cotton Warehouse Receipts*, Proceedings, Twenty-First Annual Convention, Mississippi Bankers' Association, 1909, p. 70.

cash. Allowance should be made for interest during the time required for the process of foreclosure, cost of foreclosure, and depreciation, which may be serious during the time of foreclosure.

Vacant properties held for speculative purposes are most dangerous, and more than half the forced value should never be loaned on such security. Care should not be spared in making a loan on a costly property in a poor neighborhood; a moderately good property in a desirable neighborhood is much better security.[1]

Farm Land as Security

With reference to farm land as security, many factors have to be considered. A tendency or disposition of the "young blood" to stay on the farms, a degree of thrift in the community sufficient to insure ownership, clannishness of farmers round about and their desire to be in the neighborhood of their relatives, absence of large speculative holdings near by, good and permanent markets, the character of the soil, climate and population to continue successfully along the lines of the existing system of agriculture and the adaptability or power successfully to change, should change in crops or methods occur,—all these are elements in the problem of determining the value of farm land as security for a loan.

One of these elements or factors requires amplification, viz., a degree of thrift sufficient to secure

[1] R. W. Smylie, *Doubtful Debts; Earnings and Competition*, Proceedings, Twelfth Annual Convention, Michigan Bankers' Association, 1900, pp. 53, 54.

ownership, and its corollary, the condition of indebtedness of the community. In the event of adversity, such as crop failure, a community lacking in thrift and accumulated wealth in forms other than equity in land not only fails to pay interest but, in the absence of ready cash to pay the defaults, and to take the land from the delinquents, witnesses the forcing of land on the market when there are few or no purchasers. A marked fall in prices results inevitably. Lands subject to heavy ditch or other taxes may be difficult and burdensome to hold during a lean period, but widespread individual incumbrance, uncommon in thrifty communities, is an even more unfavorable condition.[1]

The immediate neighborhood of a piece of land must also be carefully considered. As is true of urban property, a good piece of farm land in a poor locality is handicapped by its surroundings. On the other hand, a poor piece of pasture surrounded by good farms will not likely lack a purchaser, and, as security, is more desirable than if adjacent to land of the same character, for reasons that are plain.

How difficult it is satisfactorily to appraise land values is shown by one or two instances where differences in evaluation were very wide. In one case an appraiser recommended, reluctantly, a loan of $18,000 on a certain tract. Soon thereafter the owner succeeded in borrowing $40,000 on the security of the same land. In another instance, which occurred accidentally and unknown to the appraisers concerned,

[1] E. L. Johnson, *The Correct Estimate of Land Values as a Basis for Real Estate Loans*, Proceedings, Eleventh Annual Meeting, Iowa Bankers' Association, 1897, pp. 91, 92.

two appraisers employed by the same lending company, and both experienced men, appraised the same farm and were so far apart in their valuations that the difference was greater than either the margin or the equity on the basis of what the owner himself would have regarded as a fair loan.[1] Appraisers differ, and farm values as represented by appraisals are a very uncertain quantity.

It may be stated as a general principle that loans made on high-priced land are safer than those secured by low-priced tracts. This is true for several reasons. In the first place, a very appreciable community value exists in nearly all the high-priced land regions, and the rate of "turnover" on high-priced land is greater than that on cheap land. Then, cheap land deteriorates more rapidly with the same degree of misuse than does high-priced land. Hence there is a stronger tendency to abandon the cheaper land. Again, land values seem to fluctuate, particularly decline, not on a percentage basis but on a flat dollar per acre basis,[2] placing a great handicap on the cheap land. There is much less likelihood of land now worth $100 per acre falling to a value of $50 per acre than there is of land worth $25 per acre falling to $12.50,—which is another way of saying that the percentage margin of safety should be higher in the case of low grade land pledged as security than in the case of high grade land used for the same purpose, in order that the degree of safety in the two instances may be equal.

[1] D. H. Deane, *Factors Affecting Appraisals in Determining Land Value*, Trust Companies, Vol. XXV, No. 5, November, 1917, p. 462.

[2] *Idem, op. cit.*, pp. 462, 463.

CHAPTER XIII

Overdrafts

The overdraft, much less common in American banking than in England and Scotland,[1] represents a loan. The overdraft is, therefore, one form of bank credit.

Now an overdraft is frequently the result of error. If, however, errors are large and frequent, they are probably not merely inadvertent. Overdrafts are also the result of chronic indifference on the part of the depositor. They are also to be expected in connection with the accounts of depositors that are hard pressed for capital. Business firms newly established, whose trade is less brisk than was expected, are likely to over-

[1] The system of cash credits, most fully developed by the banks of Scotland, in accordance with which borrowers are enabled to secure the privilege of drawing on the bank up to an amount arranged for, paying interest on only what is actually drawn from the bank, is often referred to as having been a most powerful force in the development of the resources of Scotland and the advancement of its agriculture, commerce, and manufactures. A cash credit may be defined as permission to run an overdraft secured by good bondsmen, limited in amount and to be reduced to small proportions, if not entirely repaid, at certain times. Permission to overdraw may stand for a long period of years unless the bank becomes dissatisfied with the bondsmen or they withdraw from the obligation. *Cf.* John Johnston, *Scottish Banking System*, Proceedings, Twenty-Eighth Annual Convention, American Bankers' Association, New Orleans, 1902, p. 78.

draw their accounts. Farmers, eager to "get out of debt" and having an almost insatiable appetite for more land, as a rule maintain either no bank accounts or only small balances. The farmer may leave a standing order at the bank to call him up if he overdraws.[1] Banks, as well as business concerns, overdraw their accounts occasionally. Many country banks in the South have had annoyances arising out of delay in the mails or telegraph delivery remittances. Frequently, when such delays have occurred Northern banks have protested the checks without notice to the banks that drew them, to the deterioration of the credit of the drawing bank.[2] In general, however, bankers in the past, particularly before 1915 when the Comptroller of the Currency issued a ruling to national banks against the practice, have taken the position that there is no use of making an enemy for the bank because of an overdraft of one hundred dollars or less, which might influence unfavorably that many depositors.

Where overdrafts are very large the condition can sometimes be explained by reference to competition, and particularly among banks that are not subject to strict supervision. A big hearted private banker is more likely to be imposed upon by his depositors than the national banker of similar temperamental make-up. But a national bank may be in keen competition

[1] W. H. Smith, *Balances as a Basis of Credit*, Proceedings, Fifteenth Annual Convention, South Carolina Bankers' Association, 1915, p. 10.

[2] T. J. Byerly, *Troubles of a Banker Arising from the Overdraft*, Proceedings, Thirteenth Annual Convention, North Carolina Bankers' Association, 1909, p. 148.

with a private or state bank operated under less strict examination and supervision and find it difficult to keep its ledger free from overdrafts on account of that competition. Such a national bank in Ohio (Mt. Sterling) at one time had total resources of approximately $400,000 and overdrafts of about $50,000. At that time it was not uncommon for the two banks in Mt. Sterling, a town of 1,200 inhabitants, to have overdrafts in excess of the total overdrafts of all the banks in any city in the state.[1]

Objectionable Features

The overdraft is highly objectionable on several grounds. It is the result of somebody's miscalculation or carelessness and without definite agreement as to its terms.[2] Overdrafts are unavailable in case of need. They cannot be rediscounted. Furthermore it is maintained that in the liquidation of the affairs of defunct banks the percentage of loss from overdrafts is much larger than where the loan is secured by note.[3] In many instances large loans that have endangered the safety of banks began as overdrafts. In these cases the banks tried to protect themselves by converting the overdraft into a loan when it was so late that the note

[1] R. H. Schryver, *How the Rural Banks May be Benefited by the Federal Reserve Bank*, Proceedings, Twenty-Fifth Annual Convention, Ohio Bankers' Association, 1915, p. 68.

[2] Thornton Cooke, *The Passing of the Overdraft*, Proceedings, Twenty-Eighth Annual Convention, Kansas Bankers' Association, 1915, p. 85.

[3] J. H. Cranford, *Trials of a Country Banker*, Proceedings, Alabama Bankers' Association, 1904, p. 51.

at best represented only a hope.[1] It is probably true that a banker able to say no when he feels a loan is unsafe often permits an overdraft rather than protest a check.

In State and National Banks

State banks, as well as national, have been gross offenders in respect to overdrafts. The state institu-

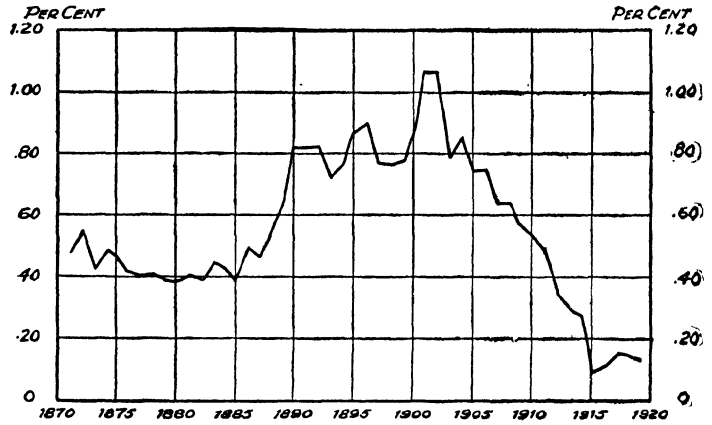


Diagram 7

tions have, however, in some instances, offered the excuse to examiners that they allowed overdrafts because competing national banks allowed them.[2]

How extensive a place the overdraft has occupied in the assets of our national banks is shown by diagram 7,—based on reports of the Comptroller of the

[1] R. N. Sims, *Banks and Their Obligations*, Proceedings, Louisiana Bankers' Association, 1917, p. 49.

[2] Idem, *op cit.*, p. 48.

Currency,—in which is shown the ratio of overdrafts to loans. It is clear from the diagram that the troublesome item is passing. State banks and trust companies have shown the same tendency, only less strong, to reduce this red ink item. From 1910 to 1916 the ratio of overdrafts to loans in all non-national banks fell from .52 to .31 per cent.

Rules for Controlling Overdrafts

Where overdrafts are allowed at all, the banker may be governed advantageously by the following considerations:

1. Let it be fully understood that an overdraft is an exceptional privilege, granted only for the time being and in emergency.
2. When overdrafts occur, as by mistake, notify the customer at once, requesting him to settle.
3. Grant the privilege to no one about whose ability or willingness to pay there is any doubt.
4. Charge interest as on any other advance of funds.
5. Suggest in a friendly manner to the customer who asks to be allowed to overdraw that it is contrary to the policy of the bank and that an advance on note would be a favor to the banker.[1]
6. Rather than permit an overdraft, particularly in connection with the operation of buying grain and stock, hold a demand note for a sufficient sum to prevent it, even if interest is charged only on the sum used.

[1] W. G. Dillon, *Overdrafts, Excessive Loans, Past-Due Paper*, Proceedings, Seventeenth Annual Convention, Tennessee Bankers' Association, 1907, p. 72.

7. Educate the merchant and others to purchase drafts, rather than send personal checks.

8. There is a type of depositor that insists on making use of the overdraft in order to avoid paying interest on funds he might not use. He may be going out of town and is not sure he will need additional funds. The banker ought to interrogate such customers politely and closely as to who is under greater obligation to hold funds in readiness to meet the emergencies of the customer's business, the banker or the customer himself.[1]

9. A customer, let the banker bear in mind, is naturally afraid to attempt to overdraw the first time, but after doing it successfully once the precedent is established. A customer is not likely to take offense if his first attempt to overdraw is frustrated. It is challenging the second or third offense that creates enmity.

Depend upon Bank Supervision

Whether in the case of a customer attempting to overdraw for the first time or in the case of one hardened to the practice, it is a very present help to the banker to have his hands upheld by bank supervising authorities. Overdrafts are, in fact, a function of the thoroughness of bank supervision. Strict supervision militates against robust advances in this form. By way of illustration it may be mentioned that overdrafts in the state banks of Nevada were reduced from $485,000 in January, 1911, when a new law providing for effective supervision went into effect, to $46,012,

[1] J. H. Cranford, *op. cit.*, p. 52.

less than two and a half years later.[1] Bankers themselves, supervision apart, are able to keep this fractious item within narrow bounds only through the execution of a firm and tactful policy.

An Index of the Soundness of the Bank

Overdrafts are, it follows, an index of the character of the bank. A large overdraft item on the financial statement is an almost certain indication that the "note pouch is bulging with rotten, mouldy notes that long since should have been charged off." [2] Large overdrafts signify an easy-going management and an inferior clientele.

[1] Eugene Howell, *State Banks of Nevada*, Proceedings, Fifth Annual Convention, Nevada Bankers' Association, 1913, p. 52.

[2] A. L. Mills, *Doubtful Banking*, Proceedings, Oregon State Bankers' Association, 1907, pp. 43, 44.

CHAPTER XIV

Loans of Country Banks

Distinctive Features of Country Bank Loans

There are several features of loans made by country banks [1] that contrast sharply with credit extended by the banking institutions of the cities. In the first place the basis of the country bank loan is highly personal. The country banker, through acquaintance and contact with customers over a period of years, possesses a close personal knowledge of his borrowers. He is, therefore, justified frequently in giving more consideration to character and capacity than would the city banker. The country banker feels warranted at times in extending credit to men whose assets are negligible, and in few cases can he rigidly observe the proportion of 2 to 1 of quick assets to current liabilities. While the city institution may regard loans beyond one third of the borrower's net worth as excessive, the country banker finds it safe in many cases to lend up to seventy five per cent of a borrower's net worth, when the borrower is a man of known probity and capacity, who is certain to devote his last dollar to paying his debts.

[1] The term country banks is used in this chapter, not as it is employed in the National Bank Act, but to designate banks operating outside the major cities. Any bank the loans of which are made in considerable part to rural interests would fall in the class of country banks as the term is here used.

What the country bank lacks in credit files and in "credit men" is offset in part by the fact that directors as well as the lending officers of such banks have this close acquaintance with the affairs of borrowers. The directorates of country banks are so constituted as frequently to make the combined possible contribution of credit information of the members reasonably accurate and reasonably complete. Instance the personnel of the board of a successful western bank. The president of the bank was previously to his taking up the banking business the manager of a lumber yard and "sold through the valley," one of the directors was the village doctor, whose practice extended for twenty miles around; another, the blacksmith, and still another the proprietor of a livery stable. When that board finished talking a borrower over they knew about all there was to know about his credit.[1]

A second distinguishing feature of country bank loans is that, unfortunately for the country banker, notes cannot always be selected from the most attractive class of customers. The customers whose notes the banker would like most to have in his note case are frequently not borrowers. The actual borrowers are those who through the use of borrowed funds will in time place themselves in that exclusive class. The country bank borrower whose paper is not gilt edged may be expected in the majority of instances to improve the quality of his paper through the use of funds borrowed and, in the fulness of years, enjoy that

[1] Jas. K. Lynch, *Banking in Theory and Practice*, Proceedings, Seventh Annual Session, Arizona Bankers' Association, 1910, p. 38.

happy credit state where borrowing is no longer necessary.[1]

In the next place, the extension of credit by city banks is frequently based in part on the average monthly balance maintained. In country banks this is scarcely a governing factor inasmuch as it often happens that the most solvent borrowers maintain the smallest balances. The money, which is needed for a specific purpose and immediate use, is soon checked out. The size of the balance maintained at other than borrowing seasons, however, does and should influence the lending officer in determining the amount of credit to be extended.[2] Many farmers do not appreciate the convenience of keeping a bank account, nor the advantage and importance of cultivating cordial and confidential relations with a banker.

Again, country bankers do not generally find demand loans against collateral highly desirable. The highest type of collateral is seldom afforded the country banks; what they usually get is second or third rate securities, salable on a rising market, slow of sale in periods of dullness and quite immovable in times of panic. Then there is no automatic liquidation of such loans. The borrower usually holds for a rise and if the market is not favorable he may desire to have the loan carried indefinitely.[3]

[1] W. S. Weston, *The Credit Department of a Country Bank*, Proceedings, Sixteenth Annual Convention, Nebraska Bankers' Association, 1912, pp. 36, 37.

[2] W. C. Gordon, *Proceedings*, Forty-Second Annual Convention, American Bankers' Association, 1916, p. 526.

[3] *Cf.* Jas. K. Lynch, *Banking in Theory and Practice*, Proceedings,

The loans of the country bank are also "slow" in comparison with loans made by city institutions. Loans of country banks to their merchant borrowers are likely to be characterized by renewals due to the habitual slowness of merchants in making collections. The country merchant is generally many months, sometimes more than a year, in making his collections.[1] Loans to merchants in the cities where sales are for cash, or for not more than 30 days' credit, contrast sharply with those to country store-keepers whose customers are farmers with long periods between harvests. Loans to farmers in new sections of the country are very slow. One case is on record where the interest was paid for fourteen years before repayment of the principal.[2] These long-time, often-renewed loans are appropriately called "sleepers."

In a country where commercial and banking obligations are met with a reasonable degree of promptness bank loans are likely to be at a minimum at the turn of the year. The writer has found one instance of a bank, in the South, whose statement of condition as of December 31 showed no loans, all of its funds being in cash and on deposit with correspondents. Cotton had been marketed early and the growers had promptly paid their store bills, enabling the merchants to liquid-

Seventh Annual Session, Arizona Bankers' Association, 1910, p. 34.

[1] Justice C. C. Craig, *Local Bills Receivable*, Proceedings, Thirty-Sixth Annual Convention, Illinois Bankers' Association, 1916, p. 127.

[2] E. N. Morrill, *Reminiscences of Banking in Kansas*, Proceedings, Eighteenth Annual Convention, Kansas Bankers' Association, 1905, p. 55.

ate their loans at the bank.[1] This condition of having all loans retired is cited because of its exceptional nature.

A country banker addressing the Missouri Bankers' Association in 1911, stated that during a single month, not especially chosen, for which computation had been made, 65 per cent of all maturing paper was renewed and 35 per cent paid. He believed that in many strictly agricultural districts the percentage of liquidation was even less. Every tendency seems to work against liquidation, and the measure of liquidation is very much lessened in time of stringency.[2]

When a renewal of a note is sought, that action in itself may be evidence that the purpose of the loan has miscarried, or that the proceeds are being diverted to uses other than those for which the loan was granted. If failure to repay promptly has been due to a bad business season or to the personal misfortune of the borrower, his efforts should be redoubled in order that the obligation may certainly be met at its next maturity. Repeated requests for renewal generally signify carelessness or financial weakness, or both, and the prudent banker ought to take prompt steps to protect his interests.[3]

Single name paper gives very little trouble to the banker in not being paid promptly or in being renewed. One name paper is likely to be settled for or renewed when due simply because its maker is able to borrow

[1] *Bulletin*, American Institute of Bank Clerks, Vol. VI, p. 243.

[2] E. R. Gurney, *A Study in Liquidation*, Proceedings, Twenty-First Annual Convention, Missouri Bankers' Association, 1911, p. 73.

[3] W. C. Gordon, *op. cit.*, p. 526.

from the bank without getting security and feeling complimented and not under the necessity of getting other names on his renewals he finds that renewal easy.[1] Single name borrowers are prompt in meeting their bank obligations and bankers have learned to avoid taking endorsed notes when there is a possibility that the endorser may be called upon to pay the debt. It is a very difficult matter to collect notes from endorsers, representing debts which are not their own. Many men will pay their own obligations unfailingly and cheerfully, who will pay only with great reluctance notes endorsed for others.[2] It generates an unfriendly feeling toward the bank when an accommodation endorser is forced to pay.

Notes with two or more names are very likely to furnish past-due paper. The reasons are, first, that a note which has to have more than one name on it to be satisfactory is itself evidence that the maker is not as successful and prompt as if his own name alone had been accepted, and, second, that the principal on the note in order to avoid the unpleasantness of going around to his endorsers to get them to renew with him will frequently try to induce the banker to defer payment on over-due paper so as to admit of its being paid off in installments.[3]

[1] John A. Crabb, *Overdrafts and Past-Due Paper*, Proceedings, Seventeenth Annual Convention, Kentucky Bankers' Association, 1909, p. 121.

[2] C. C. K. Scoville, *The Best Class of Investments for the Average Kansas Bank*, Proceedings, Sixteenth Annual Convention, Kansas Bankers' Association, 1903, p. 76.

[3] John A. Crabb, *op. cit.*, p. 122.

The borrowers of country banks frequently keep no record of and do not know the amount of their notes held by their bank and consequently inquire of the banker habitually as to the number, amounts, maturities, and perhaps the security of their obligations. If the banker has to look through the pockets of his portfolio valuable time is required, and the omission of one or more notes might cause serious trouble later. A note ledger indexed serves as a satisfactory means of ascertaining the information quickly, impressing the customer with the idea that the banker has the details of his business well in hand. A column opposite the dates of maturity should contain the dates of payment, enabling the banker to tell at a glance whether the borrower is a prompt payer. Borrowers' knowledge of the existence of a note ledger and of its nature is a spur to prompt payment. Young men applying for their first loan may be started right by simply being shown the record kept by the bank.

The evils of slow and past due paper have attracted no small amount of attention among country bankers and with improving financial conditions among farmers country bank loans are becoming more and more liquid.

Rules for Reducing Slow and Past Due Paper

The banker who desires to accelerate the reduction of his slow and past due paper may well proceed along the following lines:

1. Let the seeker of credit know in conversation not directed pointedly at him how much you appreciate a

good prompt customer, how you make a special effort to help that class of borrowers in a stringency.[1]

2. Accept no notes that do not provide for waiving protest, notice of protest, and for cost of collection.

3. Send notices to borrowers from five to ten days before date of maturity.

4. Collect past due interest.

5. After a reasonable time beyond day of maturity write the sureties, stating a definite day on which enforced collection of the note will be carried out, if no adjustment is made in the meantime.[2]

Loans to Tenants

The average tenant deserves the careful consideration of the lending banker. Tenants of the better class in the Middle West who occupy large and well improved farms are frequently worth from $4,000 to $10,000 or more in farm implements, horses and other live stock. If a tenant has lived long in the community, the banker will have no trouble in finding out whether he is honest and what chance he has of succeeding on the farm that he has rented. If the tenant is honest and industrious, has good equipment, and has a lease that is fair, the banker will generally be justified in extending credit.[3] In cases where the outcome of a loan is in doubt a chattel mortgage may at times be executed, although the chattel mortgage is not in high esteem among

[1] John A. Crabb, *op. cit.*, pp. 125, 126.

[2] W. G. Dillon, *Overdrafts, Excessive Loans, Past-Due Paper*, Proceedings, Seventeenth Annual Convention, Tennessee Bankers' Association, 1907, p. 68.

[3] Justice C. C. Craig, *op. cit.*, p. 127.

bankers, except in the rural South and in connection with financing the operations of cattle feeders in the central and southwestern states.

The variety of notes that the country banker has learned by experience to prefer is given in jaunty fashion by Mr. E. R. Gurney.[1]

We like notes taken at farm auction sales. We like to buy the trade paper, little notes from and endorsed by the grocer, the baker and candlestick maker. I leave out of the trio the butcher because paying his notes is too much like paying for dead horses. We like all little notes except those of the lightning rod decorator and of the insurance persuader. We like the note of a merchant who discounts his bills and who pays us as religiously as he does other people. We like farmers' notes given for feeding cattle, with or without mortgages. We like the note of him who has wheat in the bin. We like the note of John William Jones who is so stingy that he uses six penny nails for cuff buttons and wakes the roosters out of sound sleep as he hammers around doing chores. We like the notes of old maids who sew for a dollar a day and we steer clear of brilliant young men who have a hundred a month outgo on a twelve dollar a week income.

Whatever the variety of note contained in the country banker's loans and discounts, the rate of interest has generally been relatively high.

The Rate of Interest

The rate on loans made by country banks has been notoriously high in many sections of the West and South.[2] "One per cent a month and sometimes a

[1] *Op. cit.*, pp. 76, 77.

[2] For a detailed account of an investigation made by the Comptroller of the Currency of usurious rates charged by national banks

little rake-off above that" has been not an uncommon charge that the borrower has borne. In justification of such high rates the banker concerned contends, first, that he has to charge a great deal more than city banks because he renders more expensive service. The city banks are wholesalers of credit and lend as much to one customer in a day as some of their country correspondents would lend in a season. Relatively high costs of doing business ought to be reflected in relatively high rates.[1] A second circumstance invoked in order to justify high rates is that a majority of a country banker's customers may be men whose credit at the bank is solely a matter of their being known to the banker. "Now most of my customers," says a Georgia banker, "are men that I deal with solely on the basis that I know the men. There is many a man that I credit $100 or $200 a year, that not another bank in town would think of crediting. He will pay me and the other fellow will pay the other man."[2] The customer's credit in many cases has a very limited currency, hence the high rate.

The farmer has probably paid no more in the way of interest than the neighboring business man. A rural merchant's paper runs from 90 days to six months and bears 8 per cent in the Gulf States. A certain proportion of his loan he keeps on deposit to be drawn out

see *The Commercial and Financial Chronicle*, Vol. 101, No. 2624, October 9, 1915, pp. 1137, 1138.

[1] C. T. Smith, *Proceedings*, Twenty-Sixth Annual Convention, Georgia Bankers' Association, 1917, p. 119.

[2] R. H. Drake, *Proceedings*, Twenty-Sixth Annual Convention, Georgia Bankers' Association, 1917, pp. 129, 130.

gradually by means of checks. On these checks the banker may earn additional profit in the form of exchange. The farmers may pay two per cent more than the merchants, but their paper runs for six to twelve months. Very few farmers keep any balance, nor is much exchange earned on the account.[1] What is true in the Gulf States and the South is measurably true in other sections.

[1] *Proceedings*, Seventeenth Annual Convention, North Carolina Bankers' Association, 1913, p. 39.

CHAPTER XV

Loans of Banks to Banks

There are several ways in which one bank may lend to another. The most common is, and has long been, on the note of the borrowing bank secured by accompanying collateral in the form of stocks or bonds or customers' notes. A second method is to lend on the unsecured note of the borrowing bank. Rediscounting customers' paper is a third; and a fourth is through the purchase of bonds or other securities by the "lending" bank with the understanding that the same securities are to be sold back to the "borrowing" institution in due time. Banks also make advances to other banks in exchange for certificates of deposit. The writer knows of one bank that "lends" to other banks on certificate of deposit in order to secure convenient means of concealing profits and assets. Of these methods of lending, as employed outside the Federal Reserve banks, the lending operations of which were fully discussed in chapter VI, the first is the usual and prevailing one.

The following table contains the amount of loans to banks made by national banks in all Reserve and other cities having a population of over 75,000, December 27, 1916.[1]

[1] Report of the Comptroller of the Currency, 1917, Vol. I, p. 204.

Cities	*No. of banks*	*Direct and indirect loans to banks*	*Securities, etc., purchased from banks with agreement to resell*
New England States....	59	$ 8,042,115	$ 295,042
Eastern States.....	181	62,309,711	894,550
Southern States.....	81	9,528,530	23,500
Middle States.....	124	65,125,350	4,445,322
Western States.....	38	17,991,908	.....
Pacific States.....	39	2,349,054	73,465
Total.....	522	$165,346,678	$5,731,878

It will be readily observed that "securities, etc., purchased from banks with agreement to resell" constitute only three per cent of the combined loans made in accordance with the other two methods. When a bank buys bonds, stocks, or commercial paper at a given price, for repurchase at the same specified price, the selling bank pays interest on that price.

Where the borrowing bank is not required to bolster up its paper with that of its customers' it is, as a rule, because the lending bank is satisfied that the condition of the borrowing institution is above suspicion and the character of the management above reproach.

In the numerous cases where banks send along their customers' notes as collateral those notes bear not the signatures of big and well known borrowers, but the names of those whose credit standing is known only locally. Nevertheless, cautious lending banks do make some effort to ascertain the standing of the makers and endorsers of paper submitted as collateral and when

it is found to be unsatisfactory, substitution may be asked for. The amount of the collateral, whether rated or unrated paper, is maintained, when maturities occur, through substitution. The margin of the collateral over the face of the loan may run all the way from ten to one hundred per cent.

If the lending banker, in New York, let us say, knows the Southern banker who is borrowing against receivables, unrated paper is probably to be regarded as not inferior to rated paper. The makers of the unrated receivables the Southern banker knows, and the Southern banker may be fully as jealous of his bank's interest as is the New York correspondent of his own. Resting on a close knowledge of the character of the maker of the paper and the value of his resources, which may be only a few acres and a gray mule, the judgment of the Southern banker is probably better than that based on an investigation of a commercial agency.[1]

How nearly free from loss are these loans of banks to banks on the security of unrated paper is shown by the fact that one of the leading New York banks that lends very extensively to Southern bankers on this form of security suffered no losses whatever in 1914. The same institution has lost only a few thousand dollars over a long period of years.

Lending institutions usually require that the borrowing bank maintain an average deposit of twenty per cent of the credit extended. There are many exceptions, however, to this rule.

[1] A. J. McGrath, *The Northern Banker Passing on Paper Offered by the Southern Banker*, Proceedings, Fourteenth Annual Convention, Georgia Bankers' Association, 1905, p. 99.

Investigating the Borrowing Bank

City banks employ a great variety of methods in attempting to ascertain the standing of a bank that has applied or that may apply for a loan. Many New York institutions having bond salesmen and solicitors of new business at work in the territory of their bank-borrowing clienteles utilize those agencies in securing information from officers of *other* banks. Closer information can be got through interviews than is possible by correspondence.

It would be erroneous, however, to suppose that banks do not inquire concerning their borrowing correspondents by writing both to bankers who are located in the borrower's own and neighboring towns and to other correspondents of the borrowing institution.

Information is given almost invariably on what the bankers call non-liability paper, paper containing a statement to the effect that the bank giving the information does so as a matter of opinion for which no responsibility is to attach "to this bank." The following non-liability statement, which appears on letters sent out by a prominent Chicago bank in response to requests for credit information is typical:

> All persons are informed that any Statement on the part of this Bank or any of its Officers as to the Responsibility or Standing of any Person, Firm or Corporation, or as to the value of any Property or Securities, is a mere Matter of Opinion, and given as such; and solely as a matter of Courtesy, and for which no Responsibility, in any way, is to attach to this Bank or any of its Officers.

Non-liability paper is also used in making replies to inquiries concerning non-bank borrowers.

The practice of city banks sending representatives, frequently vice-presidents, over the country to attend bankers' conventions has two purposes: (a) to secure new business and (b) to secure credit information in a personal and very expeditious way. The most capable representatives of the metropolitan banks in attending a convention, endeavor in addition to the direct solicitation of new business, to obtain credit information along three distinct lines:

1. Effort is made promptly to meet the representatives of correspondent banks present, to discuss freely mutual inter-bank relations and to obtain as much information as possible concerning the nature of the business carried on by the interior institutions, and whether other connections or affiliations are maintained. Meeting the country banker face to face enables the officer or other representative of the city bank to form a definite opinion as to the moral risk.

2. As far as possible an effort is made to get an interchange of views with other correspondents of the interior banks, as well as an expression of opinion from representative local concerns respecting the credit standing of bank correspondents in the section visited.

3. Business methods prevailing in the locality of the country bank are made the object of inquiry, as are the development of the resources of that section and the basis of local loans, whether cereals, cotton, live stock or other commodities.

The information secured by the visiting representative is later copied in the credit files of the institution

to which it pertains and serves as an important help in passing intelligently and fairly upon applications for credit coming from the interior bank.[1]

The way in which a bank handles its accounts with the city correspondent is also an indication of character. Balances and loans over long periods are watched; overdrafts, if any, are noted. Any evidence of business-like methods coming to the attention of the lending bank does not fail to make an impression favorable to the borrowing institution. Even such an apparently trivial matter as the promptness with which reconciliation slips are handled is closely watched as an indication of carefulness and promptness or of lax and slip-shod methods.

Lending institutions welcome a suggestion from the borrowing institutions that a representative be sent to make an examination of its affairs before business relations are entered into. The findings of such a special representative are almost certain to be diverse. In one case the conditions and methods found might prove a model for many a large institution; in another the reverse.[2]

A Particular Case

Let us now examine briefly the factors underlying the making of a loan by a bank to a bank. The First National Bank of Weston, Ohio, makes an application for a loan of $25,000. In anticipation of the aforementioned application the New York correspondent has

[1] *Proceedings*, Georgia Bankers' Association, 1905, pp. 84–86.

[2] *Cf.* A. J. McGrath, *The Northern Banker Passing on Paper Offered by the Southern Banker*, Proceedings, Fourteenth Annual Convention, The Georgia Bankers' Association, 1905, p. 100.

found out about the standing of the Weston bank by writing to banking friends in Toledo, Lima and perhaps elsewhere. The lending officer of the New York bank also has at his fingers' ends figures showing how profitable the account has been, and facts as to the promptness with which reconcilements have been made, etc.

A statement of the Weston bank will also have been secured by the metropolitan institution. The statement follows:[1]

Assets		*Liabilities*	
Loans and Discounts	$142,704	Capital	$ 25,000
U. S. Bonds	20,000	Surplus	10,000
Banking house, Furniture and Fixtures	10,000	Undivided Profits	757
Other Assets	7,159	Notes	20,000
Due from Banks	16,094	Demand Deposits	28,330
Cash	8,909	Time Deposits	108,966
		Due to Banks	11,813
	$204,866		$204,866

The ratio of reserves to deposits is satisfactory, as is the ratio of capital, suplus and undivided profits to deposits. The bank could lose almost twenty five per cent of the amount of its loans and still be able to pay depositors one hundred cents on the dollar. The statement is excellent; the standing of the personnel of the bank officers and directors is high; the bank is popular in the community, assuring the improbability of heavy deposit withdrawals; business and crop conditions in and round about Weston are promising; the extension of the loan is justified.

[1] Report of the Comptroller of the Currency, 1915, Vol. II, pp. 744-745.

CHAPTER XVI

Commercial Paper Houses as Intermediaries between Borrowers and Banks

In an earlier chapter attention was directed to the rise and development of our commercial paper or note brokerage houses as important institutions in our recent financial evolution. It will be our purpose in the present chapter to examine the work and results, merits and defects of the note brokerage system with special reference to the present and immediate past.

Characteristic Features

It will be well at the outset to familiarize ourselves with the outstanding features of a typical commercial paper house. Most note brokerage or commercial paper houses represent the partnership, as distinguished from the corporate, form of organization. The corporate form, which has enjoyed such vogue in the realms of transportation, insurance, manufacturing and banking, has not found favor among the dealers in commercial paper. The prevalence of the partnership among commercial paper houses is attributable in large part to the fact that most note brokerage concerns are members of one or more stock exchanges, the rules of which do not permit members being incorporated. Moreover, the partnership form of organization is not subject to objectionable interference by the state

and has the advantage of direct and centralized control. The unlimited liability feature of the ordinary partnership is no disadvantage inasmuch as our note brokers, unlike the English bill brokers, do not endorse or guarantee, except in rare instances, the paper bought and sold.

Because our paper houses buy paper outright a large capital is necessary. When large transactions are involved the capital of the broker may be inadequate and resort had to borrowing from the banks, in which case the possession of a comfortable capital is essential. A large supply of capital is invaluable during a crisis when conditions render difficult both the sale of paper and borrowing from banks.

The ideal broker has selling facilities and sale-territory developed in keeping with his capital and bank connections. Otherwise the borrower could not lean heavily on the fair weather promises of the dealer to take care of paper irrespective of monetary and trade conditions. The resourcefulness of the broker is as important as his resources and bank connections. Young, vigorous, alert brokers with relatively small cash capital may have cultivated a widely distributed clientele and, keeping in touch with the entire field, may be more able to sell paper under adverse conditions than brokerage concerns with large bank balances and superior borrowing connections.

When the demand for paper in the East becomes inactive, these far-seeing brokers, feeling the pulse of the market from the home office in New York, Boston or Philadelphia, put forth redoubled effort in distant but cultivated territory where money is more

abundant.[1] Even when money is plethoric in localities near at home they direct their salesmen where paper is less likely to sell, in distant cities and towns, against the time when the near-by market may be wholly or partly closed.

As a matter of necessity, the typical successful note brokerage house has a high rate of turnover. As the profit hovers around a rate of only one-fourth of one per cent, or $2.50 per thousand, the turnover must be very rapid to produce a satisfactory return on the capital investment. It is believed in good circles that the note brokerage business is one that enjoys an extraordinarily good return.

The Paper

The kinds of paper handled by the note broker, which are almost as various as those taken over the counters of banks lending directly to their customers, include single name paper, double name trade paper, double name when the endorser is a director of the borrowing corporation, collateral notes, trade and bank acceptances.

Unsecured single name paper, one note broker estimates, constitutes approximately half of the total handled by brokers. Some brokers prefer to handle single name paper because of ease in securing renewals. Brokers watch maturities and replace maturing paper whenever possible. In the event of renewal single name paper obviates the necessity of securing endorsements.

[1] *Cf.* William Post, *The Loan and Credit Department,* Bulletin, American Institute of Bank Clerks, Vol. III, p. 137.

Double name trade paper, *i. e.*, promissory notes given in settlement for goods purchased, and endorsed by the seller, makes up a very small percentage of brokers' paper, five per cent being a broker's estimate. Non-trade paper bearing endorsement constitutes, perhaps, 30 or 40 per cent of the total bought and sold. Notes of many of the big textile mills are endorsed or guaranteed by the commission houses,—many of which have an extraordinarily high financial standing,—through which they sell. Where corporation officers assume a personal liability through endorsement of a corporation's notes, it not only shows the officers' confidence in the stability and success of the concern but also gives them a direct interest to see that the notes are paid. It is regarded as sound practice to give preference to the paper of concerns whose independent ability to pay seems unquestionable. If endorsements are supplied in addition, it is so much the better.

Only a small proportion of the total, probably not more than 10 per cent, is collateral loans, which, often held by savings banks, are frequently renewed.

The buyer of collateral paper may or may not depend upon the note broker to keep the value of collateral in satisfactory relation to the face of the paper. If the demand for additional collateral is not complied with the notes mature automatically.

Trade and bank acceptances are new creations in our financial polity and constitute a small but growing proportion of the total volume of paper passing through the brokerage channels. Bank acceptances, which are highly liquid, command a very low rate in comparison

with the obligations of mercantile or manufacturing concerns.

Paper is made in amounts running from $2,500 to very large sums. A variety of denomination enables the broker to meet the demands of different customers. Small denominations like $2,500 or $5,000 are frequently employed because there are many small banks that have very limited funds to invest in outside paper and larger banks with large sums available for buying paper prefer to invest only small amounts in the obligations of one concern. A given block of paper is, accordingly, generally split up into notes of small denominations.

As to time, most brokerage paper extends from two to eight months. The time element generally depends upon the needs of the borrower and the condition of the money market. Loans to finance quick transactions or short-season goods should have early maturities. If the money-market gives promise of lower rates the maturity will be shortened and renewal made as a means of saving interest. If a rise in the money market is foreseen the maturity will be lengthened.

The Volume of Note Brokerage Business

The writer has found only a few estimates of the volume of business carried on by the note brokers acting as intermediaries between borrowers and banks. As early as 1906 it was estimated in banking circles that upwards of $500,000,000 of commercial paper was sold in the course of a year by the note brokers of New York City.[1] Two years later it was estimated that the

[1] Samuel S. Conover, *The Credit Man in a Bank*, Banking Law Journal, Vol. XXIII, No. 4, April, 1906, p. 311.

annual volume of such paper sold by note brokers through the country was $2,000,000,000.[2] No authoritative figures are obtainable.

Ten Days' Option

An appreciable part of the large volume of paper handled by the brokers is sold on a ten days' option. If the purchasing bank's investigation of the maker of the paper results favorably the paper is retained; if unfavorably, returned. At the time the paper is delivered to the bank a cashier's check is given in payment for the proceeds, *i. e.*, the face of the note less the discount to maturity. Should notes be returned by the bank as unsatisfactory, reimbursement is made by the check of the broker, allowance being made to the bank for the time it has carried the instruments.

The Broker's Profit

The note broker of a generation ago performed a different function than does the broker today. Then he was a broker in a strict sense: he took paper only after he had placed it, and handled it for a commission. Today, as has been increasingly the case for about twenty-five years, the broker is a dealer: he usually buys the paper outright and takes the financial risk of placing it later. Note brokerage houses in buying paper outright do so at a rate of discount per annum at which they expect to sell the paper, and also charge the maker a flat commission of ¼ per cent (more or less) of the face value. The broker, guaranteeing, as

[2] William A. Law, *Cooperation in Commercial Credits*, Proceedings, Pennsylvania Bankers' Association, 1908, p. 43.

he does, the genuineness of the signature without endorsing the paper, may make more or less than his commission. If the market rate rises after he has purchased a given block of paper, he may lose even more than the one-fourth per cent commission. If the market rate falls, he stands to gain in proportion. The profit of the broker, which is commonly but somewhat erroneously referred to as a commission, was formerly a flat sum of $2.50 per thousand dollars. The broker's remuneration, nominally a commission, but often more or less than the commission, varies with changes in money rates, as we have stated, and according to the bargaining power of the broker as he deals under dynamic conditions with borrowers on the one hand and with lending banks on the other.

The commission of the paper dealer being *without respect to the length of time the note has to run*, makers of paper perceived that an advantage would be gained, brokers' commissions in the aggregate would be reduced, through lengthening the maturity of notes. If a given amount of 90 day paper were sold through a broker four times a year, four commissions would have to be paid. Accordingly, borrowers came to make their paper of longer and longer usance. The longer the paper had to run the smaller was the commission, expressed in terms of a percentage per annum of the principal. The borrower, or maker of paper, always and properly regards the commission as a part of the interest paid. That is to say, lengthening the time paper had to run reduced the per annum cost of the services rendered by the paper dealer, thereby enhancing the power of the paper dealer to compete success-

fully with banks lending directly. It may make for clarity to point out that one-fourth of one per cent commission on a sixty day loan is equivalent to a rate of interest of one and one-half per cent per annum. The same rate of commission on paper running six months would be equal to one-half of one per cent per annum. Long maturities ease the work of the commercial paper house and entail lowered aggregate costs to their borrowing customers. Lowered costs make the paper house a relatively attractive agency to borrowers in securing needed funds and the longer paper has to run the wider becomes the possible disparity or spread between brokers' rates and bank rates. This fact, which has been pointed to as one of the "secrets" of the business, is undeniably responsible for the lengthening of the average time of loans,—a circumstance that tends to affect adversely the flexibility of the bankers' loan maturities.[1]

Advantages of the Note Brokerage System to Borrowers

The basic reason for the rise and growth of the note broker is that borrowers found it advantageous to float their paper beyond local limits, which frequently confined their borrowing activities as to both volume and rate. During the last forty years there has been a pronounced increase in the size of the business unit, which has not infrequently found its borrowing demands in excess of the legal lending power of the local bank. The restriction imposed by the National Bank

[1] Jos. T. Talbert, *Commercial Paper*, Proceedings, Nineteenth Annual Convention, Minnesota Bankers' Association, 1908, pp. 44, 45.

Act on loans to any single borrowing concern to one-tenth of the capital and surplus of the bank—a provision that has its rough counterpart in many of our state banking statutes—necessitated resort to more than one bank. But it was inconvenient and unpleasant to keep a balance in each of several banks. The desire to break away from these arrangements prompted negotiation with the note broker whose market included hundreds of banks in a score of states.

Local borrowers were impelled to resort to credit facilities outside their communities also because the wider market commonly afforded lower rates than those obtainable at home. The facilities of the note broker enable the borrower to tap the capital supply where there is a plethora and where, therefore, the rate rules low. The local rate in St. Louis may at a given time be relatively high, in which case St. Louis merchants and manufacturers may be put in touch with lending banks in Boston or other centers where at the time, at least, rates are lower. While there is a tendency toward equalization of rates among the money centers, that tendency never works itself out completely. Nevertheless, in the process of approximate equalization of inter-sectional rates the borrower securing his funds through the note broker gains a very appreciable advantage in rate. Some of our heaviest borrowers like John Wanamaker and Armour and Company, normally seek little or no accomodation at their local banks but sell their paper in the open market. Having attained a position where they are not dependent directly on the banks, they prefer to be governed by money conditions in the leading centers,

rather than be subject to credit influences within narrowly circumscribed areas. The fact that such borrowers sell their paper does not imply that they are compelled to seek credit away from home but, instead, that they have attained the enviable position of being able to sell their paper in those markets that offer the lowest rates of discount.

There is still another way in which selling paper through a broker saves interest. A concern borrowing from a bank is expected, and often required, to maintain a balance of approximately 20 per cent of the credit limit allowed. What the bank borrower loses in interest on the idle deposit balance must be included when interest is reckoned on the loan. It makes little difference in cost whether a concern borrows at 6 per cent and maintains no balance or borrows at 5 per cent and maintains a 20 per cent balance. In other words, the broker would save the borrower interest even if the bank quoted the same rate. The commission of the broker amounting to ¼ per cent partially, but only partially, offsets the economy afforded by the note brokerage system.

It would be easy, however, to exaggerate the saving in interest traceable to the fact that the concern selling through a note brokerage house is not required to maintain a substantial deposit balance. Whether a company borrows directly or through brokers, a balance of some magnitude is normally on deposit for safe-keeping and in order to facilitate the payment of obligations. A good sized balance is conducive also to friendly relations with the local bank, which may be needed in an emergency, when the open market may fail.

Besides securing funds at a lower rate and tapping a greatly enlarged number of capital sources, the concern borrowing through note brokers strengthens its borrowing position at home. If paper stands the investigation of alert credit men in buying banks and their correspondent institutions—to say nothing of the increasingly thorough investigation carried out by the credit departments of the note brokerage houses—and lives in the market, the local banker's good opinion of the borrower is strengthened and confirmed.

Disadvantages to the Borrower

To offset these numerous advantages there are two clearly distinguishable drawbacks. The first is that the concern selling paper through a note brokerage house thereby becomes almost certainly the subject of very numerous inquiries. Banks that have bought the paper on option desiring information that is not contained in the statement or that the broker cannot or does not supply, communicate directly with the borrowing house. Whether inquiries relate to pledged accounts receivable, life insurance, contingent liability, financial worth of endorsers, sales, bad debts charged off, profits, dividends, depreciation, bank accounts and lines of credit or to other more or less important matters, considerable work and trouble may be occasioned.

The second disadvantage is of a questionable nature: the note brokerage system is conducive to overtrading and over-expansion on the part of the borrower. As this disadvantage may easily be avoided by the borrower, we shall treat it later as a weakness of the note

brokerage system, passing now to a consideration of the advantages of broker's paper to buying banks.

Advantages of the Note Brokerage System to Banks

The broker is frequently of invaluable assistance to the banks. Bankers with surplus funds not only welcome the broker with his rich assortment of offerings but even seek him out, buying his paper at a lower rate of discount than they would be willing to quote to their depositors. Looked at from this angle the brokerage house is indeed an economical agency for placing the idle funds of banks in the hands of those who can use them advantageously. But for the broker in their midst, banks in the larger cities would have to send capable and highly paid solicitors over the country in search of borrowers. Country banks having only occasional and small amounts of idle funds might find an outlet costly and unsatisfactory.

Surplus funds might be invested in bonds, but such investment is likely to shrink in principal at just the time the banker wants most to realize on its sale, *i. e.*, in a period of stringency and high money rates. Bonds lack the automatic liquidation of well chosen commercial paper and appeal less strongly to conservative bankers desiring liquidity of assets than does broker's paper.

The purchase of broker's paper has several additional advantages. Not the least of these is the avoidance of peculiarly unliquid loans that almost certainly result when the banker, in order to put out idle funds, eagerly offers money to his local merchant, jobber, or manufacturer,—to discount bills and "to keep their indebtedness all at home." In such cases the borrowers, after

some thought as to whether they can use the additional funds to advantage, usually decide that they can save some small discounts or expand their business a little. The money under those circumstances goes out and the banker later discovers that he has made a long time loan.[1] By dealing with a note broker unliquid loans of this character may be happily avoided.

The way in which the Hartford, Connecticut, banks coped with the situation arising out of the San Francisco earthquake and fire illustrates nicely the value of well selected commercial paper as a quick bank asset. Hartford insurance companies paid fire losses of more than $15,000,000, all of which found its way out of the city. The heavy withdrawals, however, were offset by the maturity and payment to the banks of outside commercial paper.[2]

Within recent years one of the oldest and most conservative trust companies in New York, by carrying bills purchased equal to approximately 50 per cent of its deposits and by having about two hundred and fifty thousand dollars of the paper bought mature during each business day during certain months of the year enjoyed the advantage of a degree of liquidity in its assets that enabled the institution to meet easily extraordinary demands whenever they occurred.[3]

[1] Charles R. Hannan, *Uniform Statement Blanks*, Proceedings, Thirteenth Annual Meeting, Iowa Bankers' Association, 1899, p. 89.

[2] J. Harold Schmidt, *Commercial Paper*, Bulletin of the American Institute of Banking, Vol. IX, December, 1907, p. 532.

[3] J. Herbert Case, *The Desirability of Commercial Paper as a Bank Investment*, Proceedings, Ninth Annual Convention, New Jersey Bankers' Association, 1912, p. 32.

Even local loans made in the regular course of business are usually slow, often being renewed and in times of stringency are likely to be increased rather than liquidated. One banker has asserted that "the only certainty about local loans is that in time of stress they will increase rather than be paid down. The credit of a local borrower is too narrowly known and there is no market for his note. If perchance it is [eligible for discount] . . . at the Federal Reserve bank and you rediscount it, it is you and not the maker who will worry about caring for it at . . . maturity. These defects are . . . inherent in local loans. To a considerable degree in the average bank they are a fixed asset." [1] To call a local loan when the borrower is not ready to pay may cause inconvenience or distress and tends to alienate business. It may be reported that the bank is "hard up." About renewing broker's paper there is neither concern nor obligation and a refusal to buy is never a reflection on a bank's condition.

From the standpoint of any given bank commercial paper bought from brokers is liquid, but from the standpoint of the whole system it is not quite so liquid as it first appears, being simply shifted to a great extent from bank to bank and renewed. The notes of large concerns having nation-wide credit move from bank to bank, but in many instances they remain relatively constant in volume.[2] In a very important

[1] F. W. Crane, *Commercial Paper Purchased from Brokers'*, Proceedings, Thirty-Sixth Annual Convention, Illinois Bankers' Association, 1916, pp. 131, 132.

[2] A. E. Adams, *As to the Efficiency of our Present System*, Proceedings, Twenty Fourth Annual Convention, Ohio Bankers' Association, 1914, p. 46.

sense such notes are not liquid, but from the standpoint of individual banks they are highly so.

Another advantage of buying broker's paper is that it enables the banker to inject variety into his loans. The danger of holding a relatively large amount of any one class of loans, a danger particularly present in the case of many country banks, may be avoided by well made purchases of paper from brokers' lists. A bank in a timber country is enabled to place in its note case paper other than loggers' or millmen's notes; in a stock section, other than stock raisers' obligations; in an agricultural section variety may be built up on the basis of farmers' notes. Should deposits run down from a depression in the industry common to the section it is "a strong anchor to the windward" to have a part of the bank's funds invested in quarters not affected by the depression at home.[1]

If adverse conditions prevail in certain lines of business it is possible gradually to curtail the volume of paper originating in those lines, and to increase at the same time the holdings of paper in lines good beyond question. This is particularly true in connection with certain trades that are more than commonly sensitive and hazardous, such as jewelry, furs, pianos, and luxuries generally. Whether times are good or bad loans made to staple lines, like groceries, staple dry goods, hardware, boots and shoes, are subject to little variation or loss.[2]

[1] A. L. Mills, *Doubtful Banking*, Proceedings, Oregon State Bankers' Association, 1907, p. 43.

[2] *Cf.* Samuel S. Conover, *The Credit Man in a Bank*, Banking Law Journal, Vol. XXIII, April, 1906, p. 311.

Bankers buying commercial paper are able also to obtain *maturities* that satisfy their prospective requirements. If a banker knows that he will probably suffer a withdrawal of deposits or meet new demands for loans at the expiration of three months, he can buy the required amount of paper having just the desired maturity, keeping his funds fully employed but available at the time needed. In discounting the notes of customers the banker feels obliged to meet their needs, although the maturities may not fit the requirements of the bank. The assortments of the paper dealers are so large and so varied as to maturity—as well as to denomination—that the banker may pick and choose.

Broker's paper is also very attractive to those numerous bankers who dislike to rediscount their own customers' notes. Broker's paper is of easy and inoffensive convertibility into cash through the rediscount process. Moreover, if the banker desires to borrow on his own note, broker's paper is almost certain to be more acceptable as collateral to the lending institution than customer's paper would be.

It may be pointed out as a further advantage of buying broker's paper that losses are lighter thereon than on local loans, even though the banker has the advantage of knowing the loan record of his customers and the benefit of personal acquaintance. The heavier losses on local paper may be explained on various grounds.

In the first place it is the practice everywhere to extend credit more liberally to customers who maintain deposit balances than would be granted through the purchase of their paper on its merits in the open market. Danger to the banker lurks in his too ready

recognition of his obligation to take care of the borrowing needs of his depositors. Long years of square dealing and personal acquaintance establish a confidence which would not be warranted by a close scrutiny of neglected credit factors. In the next place a special plea based upon emergency or mishap may cause the banker to extend credit against his own inclination and judgment. A third reason for the relatively heavy losses on local loans may lie in the operations of the note brokers themselves, who enable the borrower to pay off his obligations to the local bank by means of simply shifting his loans to other banks for a while.[1] Losses on broker's paper are seldom disastrous to the holding bank, unless an utter lack of discretion has been shown in the amount of one name purchased. It is the local loan that is likely to get the banker in beyond his depth. Such losses as do occur on broker's paper are fairly certain to be more or less evenly distributed in time as well as relatively slight in amount.

Another advantage to the banker of patronizing the commercial paper houses that seems worth noting is that the study of the credit factors underlying broker's paper constitutes a schooling that is valuable when applied to the study of local risks. The analysis of the more complex conditions of distant borrowers affords both background and guiding principles for a more intelligent scrutiny of risks right at home. The intelligent buying of broker's paper makes for sounder local loans.

[1] Jos. T. Talbert, *Commercial Credits*, Proceedings, Fifteenth Annual Convention, New York State Bankers' Association, 1908, pp. 83, 84.

Disadvantages to the Bank

What does the banker have to pay for these numerous advantages? In the first place he pays the difference between the relatively low and variable rate obtained from investment in broker's paper and the relatively high and stable yield on "straight" paper. Just what that difference is it is impossible to say with exactness, but the experience of a prominent, and perchance a typical, bank in Illinois will throw some light on the question. A record extending over twelve years prior to 1916 showed an average discount rate on broker's paper of 4.88 per cent. An officer of the same institution states that the average return from direct loans during the same period was approximately 5.5 per cent. But the loss in earnings between 4.88 per cent and 5.5 per cent is more apparent than real, for had it not been for the ready availability of the broker's paper as a secondary reserve a larger cash reserve would have been maintained. (This consideration is offset in varying degress in individual cases by the fact that direct loans almost invariably result in an increase in deposits for the lending bank.) The convertibility of broker's paper is only one step removed through the process of rediscount from cash itself. Indeed, commercial paper stood the test of the panic of 1907 more creditably than did demand loans backed by the best collateral security.

Weaknesses of the System

The most serious disadvantage or penalties of buying paper from the note brokers do not relate, however, to specific transactions. The operation of the note

brokerage system as an institution results at times in a loose but powerful regulative control over the activity of our banks, both in particular and in the aggregate, that is both far-reaching and objectionable. During periods of both easy and tight money the influence of the note brokerage houses on the lending activities of the banks is pronounced. During times of easy money the brokers come forward as rivals of the banks; during periods of stringency they tend to withdraw to a high retreat, leaving the banks to care for the needs—swollen needs—of customers returning from the broker's to the banker's fold.

It has already been said that banks with surplus funds seek out the broker, at least give his representative a cordial welcome and, because of a surplus of funds, buy from the broker paper of concerns not among the banks' customers at a rate below that which the banks quote to their local borrowers. Now a corollary is that somewhere another bank is losing a borrowing customer. A Chicago bank, let us say, having idle funds, buys the note of a Grand Rapids concern. A Grand Rapids bank, just having lost a borrowing customer, tends to have money lying idle and, seeking a natural outlet for its excessive funds through the purchase of paper from a broker, invests in the obligations of a New York concern, a concern that commercial paper dealers have succeeded in divorcing from a New York bank. The New York bank in turn tends to have idle cash available for investment in broker's paper. The process continues and spreads. The result is that the note broker, especially with easy money prevailing, comes to the front as a

distributor of bank credit, an active competitor of the banks. Individual bankers purchase the notes offered by the broker, even if the rates of discount are below those quoted to their regular customers, in an endeavor to prevent a break in local rates; but brokers' low bids reach the banks' borrowing customers and the rates on loans made directly by the banks also decline. Competition among banks and brokers assumes a cut-throat character and rates tend to become unduly depressed during periods of easy money.

At such times when money is plentiful the broker may send out scores of telegrams to both those concerns whose accounts he handles and to those whose accounts he is soliciting, offering funds at the rate prevailing *in the lowest money market in the country*, plus his commission.[1] Note brokers frequently resort to underbidding in order to take accounts from competitors or to be able to offer especially choice names that may be used to assist in the sale of less attractive ones. A broker thus threatened with the danger of losing an account naturally meets the bid and may "go one better." Demoralization of rates results. The situation is analogous to the competition afforded conservative bankers by their ambitious neighbors who attempt to attract business by the offer of high rates of interest on deposits, free collections, and more liberal credit extension. Among note brokers, however, the offenders are protected in a measure against the consequences

[1] Thomas P. Beal, Jr., *Effect of Increased Operations of Note Brokers upon the Earnings of Commercial Banks*, Proceedings, Forty-second Annual Convention, American Bankers' Association, 1916, p. 500.

of their action. If rates fall, their low bids are justified; if they rise the margin of commission is likely to be adequate to protect them against loss.[1]

It should not be overlooked that progressively lower money rates result in advancing profits for the broker. If he buys paper today at a discount of 5 per cent and, harboring hopes of a fancy profit, counts on selling the same paper at 4¾ per cent, and the rate in the paper buying market drops to 4½ per cent before the sale is made, the broker's profit, aside from the commission, will be doubled. The broker is, therefore, always under an inducement, in so far as he is able, to depress the rate of discount, which means to increase the price at which the stream of paper passing through his hands is sold. The relation between falling discount rates and brokers' profits explains what is said to have happened repeatedly; namely, when one or two large banking institutions having a superabundance of reserve and great eagerness to get it out have bought paper at rates slightly below those current, their action has been instantly communicated by brokers to every note-buying market in the country and advantage taken of it in order to break the rate in other centers. It is plain that during periods of easy money banks with surplus funds are placed, through the instrumentality of the note broker, at the mercy of the banker who, "in a moment of weakness" is willing to buy a block of paper at a rate below the market.[2]

[1] Jos. T. Talbert, *Commercial Credits*, Proceedings, Nineteenth Annual Convention, Minnesota Bankers' Association, 1908, p. 46.

[2] Ralph Van Vechten, *Proceedings*, Forty-second Annual Convention American Bankers' Association, 1916, p. 506.

While the note brokerage system is to be credited with a strong tendency toward equalizing discount rates territorially, it must be charged with accentuating differences in rates in point of time. The possible spread between the rates of Newark and Kansas City at any given time has been narrowed; the difference between the low rates of a period of easy money and the high rates prevailing when brisk trade and industry all but outrun the volume of the circulating media has tended to become widened.

An outstanding feature of the expansion of the work of the note broker, particularly in times of easy money, is the anomalous situation of bankers in being called upon to testify as to the credit of their customers whose business may be about to pass into a paper dealer's hands. A Grand Rapids banker long ago voiced poignantly the irony of conditions in which the banks, keenly pressed by their rivals the note brokers, become the agents, reluctantly, for establishing a market for and selling brokers' notes.

I have recently talked with a Chicago banker who believes in the plan of buying paper from brokers. He says that the majority of his loans are made in that way, and I presume the same plan is followed by many other metropolitan bankers. Getting a little insight into that method, from that standpoint, it is a queer sensation that creeps over the bank cashier as he opens the mail in the morning and reads one letter after another inquiring about the standing, reputation, character, and responsibility,—of whom? The best customers he has got; the very men that he depends upon to maintain his business, and by whom, perhaps, he has stood in those times of testing that you speak about, in the years

gone by, and by whom he expects to stand in the years to come, when those times come—and come they will. What kind of an answer is he to dictate to his stenographer to write back to the banker in Chicago or New York about that customer? Give him a good bill of credit, put him in good credit in his local town? Why yes, he is entitled to it. But what does it mean? What is that inquiry for? You know. We have learned what that inquiry means.[1]

The unfavorable influence of the paper dealers upon the interests of the banks through their weaning away many of the banks' best borrowing customers reaches its culmination during a period of stringency or, more rarely, crisis. As a stringency comes on bankers gradually convert their paper holdings into cash, and the brokers find them unresponsive and disinclined to further buying. Borrowing merchants and manufacturers finding the brokers unable to dispose of their paper are compelled to fall back upon their old time bank connections which may have been kept open for emergency at the insistence of the brokers themselves! Bankers then as a matter of local patriotism and out of consideration, perhaps, for hundreds of men employed by the borrower, extend credit [2] as freely as the conditions of the time permit.

[1] James R. Wylie, *Proceedings*, Thirteenth Annual Convention, Michigan Bankers' Association, 1901, pp. 36, 37.

[2] What becomes of the proceeds of such loans is an interesting and pertinent question. It has been urged that the money goes "straight into the reserve of the foreign bank." (James R. Wylie, *op. cit.*, p. 37.) That contention, however, overlooks the possibility of counter currents of funds which might hold in check and even more than offset the tendency of the reserve of the lending bank to diminish. To the extent that the loan policy of the lending, *i. e.*,

The note brokerage business has so facilitated borrowing in the open market in normal times that credit is frequently granted too liberally; too liberally as to both rate and amount. The significance of abnormally low rates in this connection is that they go hand in hand with a serious danger that borrowers will be induced by this lowered element of cost to expand their operations beyond the point of safety. The difference in rates paid by borrowers in times of easy money and those paid in periods of tight money is widened with the consequence that borrowers find adjustment to stringent monetary conditions, coupled with sagging prices for their wares, so much the more difficult. That many houses have borrowed more money through brokers than their limited capital would warrant is scarcely open to debate.

There is a very serious danger that the man with inadequate capital of his own will regard borrowed money as permanent working capital, extend his busi-

local, bank is more liberal than that of "foreign banks" the tendency will be for the lending institution to lose its cash. To the extent also that the territory tributary to the lending bank is a debtor section and creditor sections served by "foreign banks" are able to enforce collections during a period of tight money, the local bank will tend to lose its cash in favor of the banks serving the creditor sections. If we reverse the conditions, however, we get reverse results. Whether the proceeds of a loan the like of which we are considering go into the reserve of a "foreign bank," then, depends altogether on such conditions as the lending policies of the banks concerned, relative collectible intersectional indebtedness, even international exchange transactions, and perhaps other independent factors. However, any given bank that expands its loans and discounts will tend to lose reserve to other banks, unless at the same time the other banks are adding correspondingly to their outstanding commitments.

ness beyond prudent and safe limits, and, when disturbances occur in the business world, be unable to meet his obligations for borrowed funds. The broker, in contradistinction to the banker, ordinarily owns for only a short time the paper which he sells and has accordingly less incentive to keep the volume of paper sold for a client strictly within safe limits. Besides, the remuneration of the broker, as already stated, varies directly with the volume of his sales, which in turn are not anchored to and limited by the requirement of a cash reserve. When the banker, commonly conservative by nature and training, would offer discouragement from expanding a business upon the proceeds of paper maturing in four to six months, the note broker, mindful of his own interest, frequently takes the contrary course. This would be true if borrowers confined the sale of their paper to a single brokerage house. It is more noticeably true where the maker of paper employs two or more brokerage houses in addition, it may be, to borrowing directly from banks.

From what has been said it is plain that the note broker has greatly increased the difficulties of the banker in holding borrowers in restraint, in preventing over-trading and excessive indebtedness. It has happened, also, that the proceeds of notes have been absorbed by the losses of an obsolescent and unprofitable business—until a check on the further issue of paper has been imposed by a restricted money market. The banker who buys brokers' paper can no longer, as was possible before the advent of the middleman, test his borrower's solvency and ability to pay by insisting on a seasonal "clean up." Such a "clean up" may

now be only apparent owing to the wide and continuous market for paper which makes it possible for a borrower to take up his notes through the sale of fresh obligations in other quarters. The paper dealers, in other words, tend to promote reliance of the borrower upon the commercial banker for permanent or semi-permanent capital. How this tendency works out practically may be seen in connection with one or two extreme but instructive cases.

Several years ago a St. Louis concern failed owing banks $805,000, of which only $50,000 was borrowed directly. The remainder, $755,000, was sold from one end of the country to the other by note brokers, largely to country banks. Not a note was placed with St. Louis banks and the concern owed the trade,—an important source of credit information,—next to nothing.

A more recent as well as more noteworthy illustration is furnished by the borrowing operations of the H. B. Claflin Company of New York, which failed in 1914. This concern, which was one of the largest wholesale dry goods houses in the world, had affiliated with it a manufacturing concern and twenty or more retail stores. The retail stores bought of the wholesale house on open account, until the accounts reached certain amounts when notes would be given in payment of the accounts. These notes the H. B. Claflin Company would endorse and steadily offer for discount over a wide area, generally through note brokers. As to the amount of endorsed paper outstanding at any time, brokers, fearful of losing the lucrative business, were reluctant to inquire and bankers only guessed. The

key to the explanation of the willingness of bankers to buy paper offered under such uncertain conditions was the personal esteem in which Mr. H. B. Claflin, the head of the concern, was held. One of the foremost citizens of the metropolis, of unquestioned integrity and business capacity, he had cultivated a personal acquaintance with prominent bankers over extensive territory.

It was known that "everybody" held Claflin paper and it developed at the time of the failure that the "Claflin receivables or endorsements" were diffused among 2000 to 3000 banks.[1] "If everybody wants the paper," the bankers seem to have reasoned, "it must be good." The very knowledge that everyone else is carrying the paper of a given house that a banker thinks well of is a source of satisfaction to him. If failure should occur others would share his disappointment.

In June, 1914, with tight money prevailing, the concern was unable to market more paper through its brokers and asked for temporary additional assistance from its bankers. The bankers interested coöperated in making an examination of the offairs of the company, uncovering direct indebtedness of $9,000,000 and contingent liabilities of almost $32,000,000, representing the endorsed notes of the retail stores, the condition of which was a depressing revelation to the bankers concerned. Quick assets amounted to approximately $12,000,000. In spite of having long paid five or six per cent dividends the concern had been insolvent for several years. The note brokerage system

[1] Trust Companies, July, 1914, Vol. XVIII, p. 6.

had prolonged the life of the company at the expense of the banks.

Correctives

One method of eliminating the disastrous competition that the note brokers generate would consist in banks withholding credit information sought by other institutions for use in passing judgment upon broker's paper. A bank in Philadelphia in considering the purchase of broker's paper issued by one of the customers of a Baltimore bank very naturally makes inquiry of the credit department of the Baltimore bank as to the character, financial standing, etc., of the firm or corporation the purchase of whose note is under consideration. If the Baltimore banker, and other bankers similarly, were to withhold the information sought it would be like throwing sand in the bearings of the otherwise smoothly running note brokerage machinery. Such a procedure, resorted to as a corrective of the over-weening tendency of note brokers, especially in times of monetary ease, is incompatible, however, with the present cordial relations among bankers, might curtail unquestionably fair and legitimate note brokerage activity, and would probably interfere seriously with the exchange of credit information desired in connection with the determination of the quality of non-brokerage paper.[1]

Another corrective of the unfavorable influence of the paper dealers which results in semi-demoralization of interest rates and over-expansion of operations

[1] *Proceedings*, Forty-second Annual Convention, American Bankers' Association, 1916, pp. 506, 507, 508.

on the part of borrowers in periods of cheap money, merits serious consideration. Let the banker, it is urged, educate his customer to appreciate the personal character of their mutual relations and the value of the willingness of the banker to be of the greatest service in case of need. Even more important than this, it is essential to drive into the minds of borrowers the difference between paper that is given to a broker and that which is discounted at a bank. Paper discounted at a bank may be renewed at maturity if the borrower's deposits have been satisfactory and his credit is still good, even though reserves are low; paper sold through a broker may be renewed and it may not. It depends on whether the broker is able to market the renewal paper or is strong enough to carry it. Borrowers should be reminded tactfully that, by forcing their banks to lend to them at rates quoted on "commercial" paper, they are actually obtaining from the bank an insurance against times of trouble without paying for it.[1]

Still another remedy for the feverish and disturbing activity of note brokers at times when the existence of surplus loanable funds delivers the bankers into their hands is greater carefulness and watchfulness in the selection of paper by the banks. The banker should be so insistent with reference to requiring statements of condition in all cases where paper is offered for sale, so closely vigilant of the moral standing and so persistent

[1] *Cf.* Thomas P. Beal, Jr., *Effect of Increased Operations of Note Brokers upon the Earnings of Commercial Banks*, Proceedings, Forty-Second Annual Convention, American Bankers' Association, 1916, p. 504.

in checking up borrowings as to "shut and bar the door" against unsafe and overexpanded makers of paper.

Many of the most serious disappointments bankers have had with brokerage paper have resulted from the purchase of notes whose makers failed to submit audited statements through their brokers to buyers. Certain failures occurring in 1913, have been investigated carefully by a prominent Chicago banker[1] whose findings are pertinent and instructive.

The year 1913 was marked by a protracted period of stringent money and a gradual retirement of paper issued through commercial paper houses. The liquidation of the paper, which caused much inconvenience and heavy business mortality, placed a heavy strain on the commercial paper houses and was effected only after the banks took on lines of credit from their customers out of all proportion to their previous agreements, preventing thereby what might have been serious disaster. As it was, there were numerous failures of houses unable to secure accommodation at their banks sufficient to relieve their over-extended condition.

Note brokers and bankers were in a large measure responsible for the over-extension that led to failure. The ease with which flotations of paper could be made through note brokers, without proper restrictions being thrown around the issuance of statements, was responsible for many of the largest failures.

Insistence by note brokers and bankers upon carefully audited statements would have obviated most

[1] Ralph Van Vechten, *Proceedings*, Thirty-ninth Annual Convention, American Bankers' Association, 1913, pp. 518, 519.

of the trouble. Fifteen failures out of twenty one were due to over-extended credit. Two were caused by dry rot, poor business and poor management. One case was the result of labor troubles combined with poor business. One was due to internal dissensions. In another, the working capital had long been employed by the largest stockholder in private operations. One failure was the result of flood conditions in the Ohio Valley. In the entire list there was only one case of an audited statement, and the failure of that company was the result of an unforeseen disaster. Only one name in the entire list would have been purchased if the note brokers or buying banks had insisted upon the purchase of only those notes whose makers submitted audited statements.

Inasmuch as bankers frequently give preference to the paper of those houses whose accounts are audited and certified to by independent accountants, it seems reasonable to expect that the present tendency of bankers to insist more and more upon audited statements from makers of paper will continue.

In addition to the insistence of bankers and note brokers upon audits by chartered accountants of recognized character and ability there should be a friendly and intelligent coöperation between note brokers and the bankers who carry the accounts of concerns floating paper in the open market. Frequent comparisons could be made and over-extension prevented. The same desirable end would be favored by close coöperation among national, state and clearing house examining authorities with reference to lines of credit having an extensive market.

The registration of commercial paper as a method of preventing its over-issue was widely discussed a few years ago, after the panic of 1907, and was hailed as a great forward movement advantageous to both borrowers and lenders, saving time in the inquiry of buying banks and resulting, it was contended, in a favorable rate to the borrower because of the full and definite knowledge obtainable with reference to the amount of paper outstanding.[1]

The details of registering commercial paper are simple. Registration requires a resolution of the board of directors of a concern about to have its paper registered, affirming that all notes signed or endorsed by the company and all drafts and bills of exchange accepted in the name of the company in order to be valid must be registered by a trust company and the registration noted on the paper itself over the signature of an officer of the trust company. The trust company is authorized and directed to keep a record of all registrations, including amounts, maturities, and any other detail necessary to identify the paper. The trust company is also instructed to furnish any bank, banker or trust company, upon request, a statement of the amount of unmatured registered paper. In principle, the registration of commercial paper is similar to the registering of corporate stocks and bonds.

Wide publicity which was given the registration of the short-time obligations of the International Paper Company with the Bankers Trust Company of New

[1] Owen Shepperd, *Commercial Paper Registration*, Trust Companies, Vol. 12, No. 3, March, 1911, pp. 178–182; also *ibid.*, p. 271, and New York Bankers' Magazine, Vol. 82, May, 1911, p. 572.

York, February 1, 1911, and the announcement of facilities for registration by other prominent financial institutions has made little impression upon our great borrowing concerns and the movement has made no substantial progress, receiving meager support, even positive opposition, from borrowers and note brokers. The note broker, sensible of having served as a repository of information relating to his clients' affairs in the past and having no liking for red tape, refused to give the movement his support. The borrower objected to registration because it might disclose to competitors his lack of capital, his volume of business or other facts that might be detrimental to him.

The advantages of registration to the bank buying commercial paper are so pronounced that it is hoped the movement will not fail. Forged or spurious paper could scarcely pass undetected through the registering trust company, where signatures of the officials of the issuing corporation would be on file. The issue of unauthorized paper would also be forestalled. The amount of paper outstanding would always tally with the amount on the signed statement. Over-expansion would be rendered difficult and flagrant over-issue of paper, such as occurred in connection with the Claflin failure, scarcely possible.

If the obstacles in the way of formal registration should prove insuperable, a closer coöperation between note brokers and banks might result in a greatly modified form of registration that would be simple, effective, and acceptable to all concerned. If concerns issuing paper would make statements to their respective bankers and to banks where the notes are payable

of the amounts and maturities of paper outstanding at the time of issue, instead of a short time in advance of maturity, as is now customary, the objections to registration that it would permit of too much publicity and involve objectionable red tape would be, in large measure, overcome. The borrower's own bank would always be in possession of the amount of paper outstanding and where there were two or more payer banks an exchange of information would be just as easy as it is today between banks that have accounts and lines of credit in common. The adoption of the recommendation would encourage makers of commercial paper who do not maintain accounts in banks located in the large cities to establish banking connections in the important centers, thus fortifying themselves by providing additional bank accommodation against emergency or need. If they preferred, they could arrange through their home banks to have their paper made payable to the latter's city correspondent, with the understanding that the city correspondent would keep the local bank informed of the volume of paper outstanding at all times.[1] Change has come so fast in our lending methods during the last decade that it is perhaps not too much to expect that proper safeguards will be thrown around the commercial paper passing through the hands of dealers, and particularly in so far as the problem relates to placing prospective buyers of paper in a position readily to find out the amount of paper outstanding in any given case.

In brief, the reëstablishment of a coöperative spirit

[1] Ralph Van Vechten, *Proceedings* Thirty Ninth Annual Convention, American Bankers' Association, 1913, pp. 520, 521.

and friendly personal relations between banks and their borrowers, combined with more searching and exacting methods of investigation by the banks, and close coöperation between note brokers and banks, would tend to curb over-expansion and to stabilize interest rates by keeping the operations of the note brokers within bounds. The result would be a slightly higher interest rate when rates were low and a lower rate when rates were high. Meanwhile the business of the note brokerage houses would not be wiped out. Like the rates on paper passing over their counters the volume of their business would itself be more stable and uniform.

CHAPTER XVII

Bank Supervision in Relation to Bank Credit

The most valuable service of a bank examiner has to do with his wholesome influence on the quality and volume of the loans of the institutions supervised. By enabling banks under his jurisdiction to avoid unsafe and dangerous loans the examiner renders a valuable service not only to the banks concerned but also to the business community as a whole. In so far as he tends to keep the crucial ratio of reserve to deposits safe and within the limits of prudence he checks general over-expansion of bank credit. To the extent that he prevents and reduces loans extended to unsound credit risks, he promotes an equitable distribution of available funds among the most efficient and worthy borrowers. In safeguarding the quality of bank loans the examiner is an increasingly important and welcome ally of the bank credit man.

Bank examinations in the United States are either "external" or "internal." External examinations have their inception in agencies outside the bank such as the national or state governments or clearing house associations. They are precautionary and protective measures designed to minimize, if not wholly to prevent, banking practices and conditions inimical to the interests of the public in general or groups of banks in particular. The object of external examinations,

like the initiative taken, is public or quasi-public in character. Internal examinations, on the contrary, are private in nature and restricted in scope to the work and condition of the institution examined. The purpose of an internal examination is to correct and eliminate practices that run counter to the interests of the shareholders of the bank affected. Internal examinations are exemplified by those conducted by bank directors and those by public accountants employed directly by banking institutions.

Examinations in most leading countries such as England, Scotland, Germany, France, and Canada, are internal; in the United States prevailingly, but not exclusively, external. In our own country, with its decentralized banking system, developments in recent years in connection with bank examination and supervision have had striking and pronounced effects upon the distribution of credit extended by banks to their borrowing customers. It will be convenient to consider first the supervision of national banks in relation to the quality and distribution of their loans.

National Bank Supervision

Thanks to the energetic and constructive efforts of the Comptrollers of the currency and to statutory changes, a transformation in the methods and effectiveness of national bank supervision was made during the decade following the crisis of 1907. Previously examiners, inadequate in number, compensated on a fee basis, and drawn in many cases from the ranks of those without actual accounting experience, did their work hurriedly, inefficiently and without special

reference to the soundness and liquidity of bank loans. Examiners had for years worked in the same district, conferred with nobody, each following his own methods, which were often faulty and crude, knowing very little of borrowers' standings and the value of securities. The pooling of credit information as well as coöperation in other forms among the examiners themselves and between the examiners and the Comptroller's office was almost entirely lacking. The need of such coöperation had clearly developed.

In the reorganization of the service by Comptroller Murray subsequently to the panic of 1907 the country was divided into eleven districts; one of the very best examiners in the work being named as chairman of each district, and the examiners of each district being required to attend a joint meeting in their district at least twice a year.

The meetings not only afford opportunity for the discussion of such matters as the adoption of new forms and blanks, good and bad banking practices, good and bad bankers, but are clearing houses for the exchange of credit information.

Reports are rendered at the meetings by each examiner on every bank in his district which he regards as in an unsound condition. From all the reports of the individual examiners the chairman makes up a final report, copies of which are mailed to the Comptroller and to each of the other district chairmen for their information and for the information of examiners in other districts.

A credit bureau has been built up in the Comptroller's office on the basis of facts submitted in the

reports made by the district chairman. Furthermore, as a copy of the report of each chairman is sent to each of the other chairmen, and as the reports are accessible to the individual examiners, it is possible for any examiner who is interested in any particular line of credit to find out through his chairman what the other ten chairmen know about the subject of his inquiry.[1]

Another improvement in the national examining service was the appointment of a number of examiners at large. The time of these special examiners has been devoted largely to banks which had been under severe criticism for years, the regular examiner being unable to cope with them, either because of lack of time or lack of force of character. This class of banks, given to chronic disorder, has been put into satisfactory condition.

The examiners at large have another and equally important function. Going all over the United States, examining banks in different districts, they are required to report to the Comptroller whether the regular examiners are doing their work carefully and satisfactorily. They are not only examiners of banks which most imperatively call for tactful and thorough treatment but are also supervisors of the ordinary examiners.[2]

The general relations of examiners to banks are now quite satisfactory. Examiners are no longer permitted to borrow from national banks; to own stock in a

[1] Lawrence O. Murray, *Some Problems of the Comptroller's Office*, Proceedings, Thirty Fifth Annual Convention, American Bankers' Association, 1909, p. 165.

[2] *Ibid.*, p. 170.

national bank; to serve as officers or directors of any corporations which borrow from a national bank; to engage in any business except examining banks.[1]

The modifications of the methods and machinery of national bank supervision introduced under the direction of the Comptroller of the Currency have been supplemented by improvements provided for by the Federal Reserve Act. That statute placed national bank examiners on a salary basis of compensation, insuring examination more nearly adequate and equal to the actual and varying requirements of institutions of whatever size and condition. It is, however, not the invariable testimony of bankers that the operation of the provisions of the act of 1913 relating to bank supervision has resulted in greater effort and success on the part of examiners to tone up the character of the contents of the note case. Politics, bankers contend, bring into the examining service individuals who, good party men that they may be, are inefficient as auditors and appraisers.

State Bank Supervision in Relation to Bank Loans

Improvement in the work of bank examination carried on by the states has been scarcely less marked than that under the control of the Comptroller of the Currency. It would carry us too far afield to give a detailed description of the work of the progress made by the various states,—but instead we may well indicate what has been done in an exemplary manner by one or two of the leading states, notably New York, by way of

[1] *Ibid.*, p. 166.

purging the contents of the banks' portfolios of inferior and worthless paper. The supervision of New York State banks is serving as a guide to the banking departments of other states and deserves attention because of the numerous and important measures that have been taken to raise the quality of bank loans.

We may mention first the establishment in 1911 of a credit bureau.[1] A record is there kept of borrowers of large amounts in state institutions, of group loans, persons borrowing through the use of corporate title and trade names in order to secure "extra" accommodation, of dummy borrowers, of bank stock hypothecations,—hypothecations that indicate whether the stock is lodged in strong or weak hands and if the control of the institution is carried on borrowed money. The credit bureau furnishes the banking department a check on irresponsible borrowers and on the activities of ambitious promoters who purchase control of banks in order to obtain additional facilities to further their own speculations. But the principal work of the credit bureau is the investigation of over-extended borrowers, who, employing false statements, secure accommodation from a number of institutions, each institution making a loan upon the assumption that there are no other lending banks involved. One case was found in which the borrower maintained accounts in twenty-nine banks, and one individual was discovered borrowing in the name of thirty individuals and corporations. The banking department of New York State is able upon request to furnish to banks under its supervision

[1] Annual Report of the Superintendent of Banks, New York, 1912, p. 8. Same for 1915, p. 16; for 1916, pp. 15, 16.

the total of a borrower's bank loans and the number of State institutions lending to the borrower, without, of course, disclosing the names of the lending banks.[1]

The State bank department of Indiana also keeps a record of all loans in excess of $2,500; which includes paper bought of brokers. The benefit to the banks of this credit information is illustrated by the case of a manufacturing company that sold $134,000 of commercial paper to Indiana banks. The department felt, after investigation, that the amount was excessive, and the banks were informed, upon inquiry, of the total amount borrowed. Within a few months when the company went into the hands of a receiver the concern owed the banks only $40,000 and half of that amount was additionally secured.[2]

Another movement in the direction of improving the loans of New York State banks is the simultaneous examination, in coöperation with the Federal examiners, of all the banks in a given district. The principal object of the simultaneous examinations is to obtain the best possible information concerning borrowers that is available for the credit files of the banking department. The best information cannot readily be secured when the banks are examined separately and at different periods of time.[3]

Coöperation between state and federal examiners,

[1] *Ibid.*, 1912, pp. 8–10.

[2] W. H. O'Brien, *Observations on Bank Examinations*, Proceedings, Sixteenth Annual Convention, Indiana Bankers' Association, 1912, p. 177.

[3] Annual Report of the Superintendent of Banks, New York, 1913, p. 11.

begun in 1908, is now the rule. A conference of the examiners after the examination tends to bring to light the true condition of the affairs of the banks through an exchange of credit and other information.[1] Clearing house bank examiners are also coöperating with both state and federal authorities, this coöperation taking the form chiefly of attempting to discover and repress "double" and "multiple" borrowers.

Clearing House Bank Examination in Relation to the Quality of Bank Loans

Clearing house examinations, wherever introduced and efficiently administered can and will by their restraining influence reduce the evils of bad judgment and dishonesty to a minimum and effectually prevent any general condition of unsoundness or of bad banking, just as certainly as modern sanitation, isolation and health inspection may be depended upon to prevent the serious spread of contagious diseases. An occasional death may occur, but there can be no epidemic.[2]

What is clearing house bank examination? Where is it in operation and in what ways does its operation affect the quality of the paper which the borrower gives in exchange for the credit of his bank?

In 1906 the clearing house banks of Chicago, for the good of Chicago banking, assumed the liabilities

[1] Lawrence O. Murray, *Some Problems of the Comptroller's Office*, Proceedings, Thirty Fifth Annual Convention, American Bankers' Association, 1909, p. 170.

[2] Joseph G. Talbert, *Proceedings*, Eighteenth Annual Convention, New York State Bankers' Association, 1911, p. 48.

of three failed banks,—the Walsh banks,—a national bank, a savings bank, and a trust company, which had been forced to close their doors on account of mismanagement and misplaced loans. At this juncture a system of bank examination under the direct and close supervision of an examiner and a corps of assistants chosen by the Chicago Clearing House Association was conceived and, to the surprise of its originator, approved by the association and quickly put into operation. From Chicago the idea has spread to Minneapolis, St. Paul and a score of other leading cities.[1] Chicago, as has been true of other cities adopting the idea, has followed the policy of giving the examiner a large measure of freedom of action, unhampered by hard and fast rules and arbitrary instructions. Whether in Chicago, Los Angeles, Cleveland, St. Louis, or New York, the nature of the examination is substantially the same. A thorough understanding of the influence of clearing house bank examination upon the quality of the basic elements of security underlying bank loans will be facilitated by a brief description of the method followed by the clearing examiner in the performance of his work. The account that follows, although it pertains directly to the practice in St. Louis, may be regarded as typical.

[1] In 1916 the banks of the following cities were under supervision of clearing house bank examiners:—New York, Chicago, Philadelphia, St. Louis, Cleveland, Kansas City, New Orleans, Los Angeles, Milwaukee, Louisville, Minneapolis, St. Paul, Columbus, O., Nashville, Spokane, Portland, Ore., Oklahoma City, Muskogee, Okla., St. Joseph, Mo. *Proceedings*, Forty Second Annual Convention American Bankers' Association, 1916, p. 495.

The System Described

Without notice and of his own volition, the examiner, with his assistants, enters a bank or trust company and begins the examination. To both the books and information of officers and employees he has free access. Having completed the examination he makes duplicate reports, which contain all the essential facts obtained in the investigation. The amount of the cash of the bank, of its past due paper, of excessive loans, of its bad debts, if any, the amount due by the directors as payers, endorsers or guarantors, the amount due by corporations in which directors are interested, the value and book valuation of the bonds carried, whether or not capital, surplus, and undivided profits are represented by good assets,—these items and facts are set forth in the examiner's report, one copy of which is delivered by the examiner to the president of the institution examined. Each director of that institution is notified by mail that the examiner's report is in the hands of the president of the institution in question. A written request is made by the examiner that the director notify the examiner in writing of the receipt of the notice. If necessary a second notice, or a third, is sent. The purpose is to establish the fact that every director of every institution which is a member of or connected with the St. Louis Clearing House is informed of the condition of his institution as disclosed by the clearing house bank examiner.

If the examination reveals nothing indicating bad management or unsafe condition, the chairman of

the Committee of Management of the clearing house is so notified and the duplicate report is placed in the examiner's files. Under such condition the report is seen by no one except the officers and directors of the examined bank or trust company.

If on the other hand the examiner finds conditions different from the case just stated, he submits a report to the Committee of Management. The committee then requests the bank management to correct conditions under penalty of having the institution suspended from the clearing house until a meeting of the clearing house association has been called and the whole matter placed in detail before it. Conditions are almost invariably corrected with celerity.[1]

In the work of the clearing house examiner, in distinction from that of state and national examiners, chief emphasis is placed on improving the quality of the bank loans or of preventing deterioration in that quality. Banks in thoroughly sound condition are passed quickly by; those showing signs of precarious condition are examined frequently in order that they may be built up and their condition improved.[2]

Government authorities, national or state, may interfere only when conditions become so bad that the capital of the bank is impaired or its solvency ques-

[1] W. H. Lee, *Clearing House Bank Examinations*, an address delivered before the Missouri Bankers' Association, St. Louis, Mo., May 18, 1910, pp. 6–8. (Published by the St. Louis Clearing House Association.)

[2] John W. Wilson, *The Work of the Clearing House Examiner*, Proceedings, Thirty Seventh Annual Convention, American Bankers' Association, 1911, p. 707.

tioned. The clearing house interferes if only the statement of condition returned to the Comptroller of the Currency or to the state banking authorities, as the case may be, does not show a true condition of existing affairs as discovered and reported upon by the local examiner.[1]

Mr. J. B. Forgan, formerly president of the First National Bank of Chicago, and a close observer of the working of the clearing house system of examinations, says:—

> Our methods insure the stirring up and elimination of the sediment which is liable to accumulate in the banks. I am in the habit of classifying bank assets in dairy terms, such as cream, sweet milk, skim milk, sour milk and sediment. In the bank, as in the dairy, the sediment falls to the bottom, where it remains out of sight and out of mind unless constant vigilance is exercised in its elimination. If a bank's management is weak the cream is liable to be skimmed off the top, while the sediment accumulates at the bottom, and gradually its assets become so permeated with it that they form a putrid mass of curds only fit for the dump pile of a receivership. Clearing house examinations tend to the healthful conservation of the sweet milk and cream and to the elimination of the sour milk and sediment.[2]

Supervision by a local examiner thoroughly familiar with the condition of the institutions with which he has to do is highly valuable also in quite another respect, *viz.*, in protecting sound banks against unjusti-

[1] J. B. Forgan, *Clearing House Examinations by Clearing House Examiners*, Proceedings, Thirty Sixth Annual Convention, American Bankers' Association, 1910, pp. 689, 690.

[2] *Ibid.*, p. 690.

fiable assaults, and delicate credit situations against unfavorable influences. Mr. Ralph Van Vechten, an ardent champion of clearing house bank examination, illustrates the efficacy of the system in this connection.

During one of the recent stringencies one of the smaller banks was being talked about. The bank was perfectly sound. But this talk reached a bonding company which was on the bank's bond for city deposits. The bonding company sent out word to its representatives to withdraw from that bond. You know what would have been the result of such a withdrawal at such a time. Mind you, this was during a severe stringency. The representative of the bonding company came to me and asked me my advice about it, and I asked him the names of his directors, his local directors, and he submitted them and I said, "You go to this man," who was president of one of the banks. He went to this local director and said, "Will you recommend that this bond be continued?" The answer was, "I will recommend that the bond be continued if the clearing house examiner will tell me that the bank is sound." He called up the examiner over the telephone and the examiner said that the bank was absolutely sound. The director immediately telephoned to the New York office of the company and the bond was continued. Now, things of that kind are mentioned as an illustration of the possibilities of the system and its benefits. Those things are coming up all the time.[1]

The work of the clearing house examiner is complementary to that of national and state examiners. He is intimately acquainted with the conditions prevailing in his locality. In fact, he lives in the locality where

[1] Ralph Van Vechten, *Proceedings*, Forty First Annual Convention, American Bankers' Association, Seattle, 1916, p. 501.

he works. He knows much more intimately than it is possible for examiners presiding over larger territory to know, not only the accounts of the business men but also their personal history, methods and character.

One of the chief and distinctive merits of clearing house bank supervision lies in the fact that the examiner, unlike the federal and state examiners, reports his findings directly to the individual directors who are his employers. It is one thing to write a report to a distant federal or state officer who does not know whether the report represents accurately the condition of the bank examined; it is quite a different thing to frame a report for the use of the officers and directors of the institution itself, who know more about its condition and intimate affairs than the examiner can reasonably hope to know. His work must be so searching and thorough as to beget continued confidence. It is the opinion of an examiner with experience in both national and clearing house service that it is the necessity of the detailed report to the directors themselves that is the greatest insurance of careful and efficient work on the part of the examiner.[1]

Coöperation among clearing house, state, and national examining authorities would render it easy to ascertain the amount of doubtful and worthless loans and other assets in any bank, effectually to eliminate them, and prevent their being shifted from one institution to another. There should be, however, no objection to the clearing house examiner divulging infor-

[1] Francis Coates, Jr., *What Effect will the Federal Reserve Act have on Clearing House Examinations*, Proceedings, Fortieth Annual Convention, American Bankers' Association, 1914, p. 492.

mation received by him in his own work as the state and national examiners have it within their power to acquire this information for themselves.[1]

The highest degree of usefulness and success of bank examination under the auspices of clearing house associations will be attained only through full coöperation with national and state systems of supervision, since any single clearing house system of supervision cannot safely be extended beyond limited bounds without a loss in the distinctive advantages flowing from intensive and localized work and study. The Los Angeles system has, at their request, been extended so as to include thirty-six banks outside the city, and within this "outer zone" of twenty miles from Los Angeles it would be difficult for a bank to close its doors. Outlying banks near Chicago also have come under the supervision of the clearing house examiner of that city.[2] Beyond such limits the system would likely lose progressively in efficiency.

Influence upon Loans of Small Banks

The clearing house system of examinations through provision for pooling the credit information of the banks of a given locality as well as information relating to collateral has been of signal value in raising the quality of both secured and unsecured loans, par-

[1] H. M. Zimmerman, *Coöperation between Clearing House Association and State Banking Department*, Proceedings, Thirty Seventh Annual Convention, American Bankers' Association, 1911, pp. 693, 694.

[2] *Proceedings*, Forty First Annual Convention, American Bankers' Association, Seattle, 1915, pp. 515, 516.

ticularly of the smaller banks. In Los Angeles nine tenths of the knowledge obtained regarding collateral stocks of known value came from the larger banks; nine tenths of the stocks of unknown value used as collateral were found in the smaller banks.

Some of the details of the way in which information is pooled and handled may well be indicated. After each examination the names of all borrowers of $1,000 and over, let us say, are listed on a card system. After all the banks have been examined once, the cards begin to mean something. Some names may show heavy borrowings at several banks. The card is before the examiner and bears the name of the borrowing individual or concern, the name of the lending bank, the collateral, if any, the amount of the loan, the commercial rating, and the last financial statement condensed. The card may show numerous loans at as many banks. Each separate loan is considered; those with satisfactory collateral being passed over quickly. The unsecured loans are then decided upon. Let us suppose Brown is found with numerous borrowings. The card says he is worth $200,000 and has borrowed $100,000 without security from each of five banks. Every lending bank is consulted regarding Brown, his business, integrity, mode of life, etc. The interested banks are notified of Brown's borrowings, and asked if in their opinion the credit extended is warranted. With the information in his possession each banker is allowed to use his own judgment as to calling the loan, demanding security or allowing it to stand. The cards also contain such expressions as no good, liar, slow pay, moral risk, bad. A very careful study and

analysis of the cards serves to bring weak borrowers to the surface. Sometimes the banks are requested by way of a friendly hint to have a given note secured by acceptable collateral or call the loan. The banks know of the information in the possession of the examiner and make many inquiries concerning the standing of firms and individuals and the value of collateral. Inasmuch as the greater number of inquiries comes from the smaller banks and the information filed in the examiner's office is free for the asking, it becomes evident at once that small banks are elevated to a position where they, too, can learn of poor risks and poor collateral before loans are made.[1]

Small banks before the installation of examination under local authority providing for the pooling of credit information may have been getting a large proportion of the loan rejections of other and larger banks with superior credit information facilities. To such small banks the establishment of a system of supervision providing for a free interchange of credit information proves a great boon.[2] All banks, whether large or small, are relieved of the necessity of relying on "street" information.

Effects upon Loans to " Double " Borrowers in Large Cities

In our large cities, particularly, there are very many accounts that are common to nearly all the

[1] John W. Wilson, *The Work of the Clearing House Examiner*, Proceedings, Thirty Seventh Annual Convention, The American Bankers' Association, 1911, pp. 707, 708.

[2] *Ibid.*, pp. 723, 724.

banks of those cities. Lines of credit of a local nature but of vast importance in the particular community are under no control except through the clearing house supervision of banks. If a given bank desires to ascertain whether a certain concern is expanding too fast, whether it is using too much credit, the clearing house examiner upon request gives the bank total loans outstanding of the concern in question, without, of course, disclosing the name of any bank involved,[1] placing the bank in a way to check or curtail or cut off the loans of the concern,—to lock the door before the horse is stolen. The "duplicated" borrowers' file built up by the examiner at Cleveland, contained "some thirty-five hundred names" in 1914.[2]

Incidental Effects upon Loans

One of the most valuable, if minor, features of the system of examination under discussion is that the detailed report of the examiner which is brought forcibly to the attention of each of the directors, as already explained, causes directors to know a great deal more about the affairs of the bank than they would otherwise. Even the members of the executive committee of the bank, who are very familiar with its work, are familiarized with details of securities or loans that might not come to their knowledge either through absence from meetings or through inadvertence or failure of officers to make reports.[3]

[1] Ralph Van Vechten, *Proceedings*, Forty First Annual Convention, American Bankers' Association, Seattle, 1915, pp. 500, 501.

[2] Francis Coates, Jr., *op. cit.*, p. 490.

[3] Ralph Van Vechten, *op. cit.*, p. 500.

Clearing house examination has been at once a powerful corrective of weak loans already made and a positive deterrent to the further accumulation of similar paper. The dread of a report from the clearing house examiner has been sufficiently strong to make banks extremely careful as to the bills they put into their portfolios. Then the system furnishes a very good excuse to bankers to state to the applicant for a loan which it is felt preferable not to grant that it is not the kind of a loan which the clearing house examiner would look upon with favor.[1]

By way of contrast another function performed by the clearing house examiner is worth noting. In certain cases where the policy of the institution is to handle only the highest class of business, the examiner may not think it amiss to try to impress upon the officers and directors the desirability of adopting a more liberal policy in order to justify the existence of the bank as a useful factor in the community by aiding more generously meritorious enterprises that come naturally within its range of operation.[2] In other words, the loan standards of the banks are made more nearly uniform: those of a few being made more liberal; of many, less so. Clearing house examination promotes not only the soundness of bank loans but also the equitable distribution of bank credit among borrowers.

Finally, it is to be pointed out that clearing house

[1] Sol Wexler, *Proceedings*, Thirty Sixth Annual Convention, American Bankers' Association, 1910, p. 665.

[2] A. Kains, *Clearing House Examination of Banks*, Proceedings, Fifteenth Convention, California Bankers' Association, 1909, pp. 159, 160.

examination of banks has resulted in the elimination of a great many institutions throughout the country which did not deserve to remain in the banking business. It has also brought about a more friendly feeling among banks, paving the way for consolidations, a circumstance which has led to a much more conservative and careful loan policy,[1] with favorable resulting effect upon the quality of the portfolio contents.

The fact that the commercial paper of the member banks in the Federal Reserve system has, since 1914, been employed in larger and larger volume as security underlying the Federal Reserve notes and deposits gives added significance to the inception and growth of clearing house examination of banks. As long as the Federal Reserve banks continue to rely chiefly upon the member banks to safeguard the quality of the paper which is rediscounted and subsequently used as the basis of note issues by the regional institutions the examination of banks under clearing house auspices will be a potent and salutary force affecting the elemental safety of the only elastic element in our monetary circulation. Not only does this now widespread form of bank supervision render the structure of business and finance less liable to the consuming fires of crisis and panic; it also improves and intensifies the means wherewith the conflagration, breaking out, may be controlled and extinguished.

The establishment of systems of clearing house bank examination by the leading clearing house associations in the United States during the decade following 1906 is a movement comparable in significance and

[1] Sol Wexler, *op. cit.*, pp. 664, 665.

beneficial results to the establishment of credit departments by our leading banks. The use of the credit department and the advent of the independent examination of clearing house members have created a new era marked by higher standards imposed upon the sellers of commercial paper as well as the direct borrowers of banks.

Internal Bank Examination

Internal bank examination may be by the board of directors of the bank concerned, or a committee of the board, by employees, or by an auditing company or chartered accountants. In all these cases except the first, however, the examination is likely to be in the nature of an audit with little attention given to appraising the contents of the note pouch. Examination by directors on the contrary naturally takes the form of evaluating assets,—where the busy directors have time and disposition. Directors are not likely to be well qualified as accountants to audit the books, but they are commonly able to pass excellent judgment on the paper held by their bank, and examinations by directors should be encouraged.

When chartered accountants insist on invoking the help of the directors in appraising the loans and other investments, excellent results in the way of eliminating bad paper are easily within reach. Well informed directors supplement the work of chartered accountants at its weakest point, *i. e.*, the inability of the accounting firms to pass intelligently upon the names of bank borrowers.

Probably the most ambitious attempt of certified accountants to overcome the very patent weakness in

their work as bank examiners is represented by a New York firm, Marwick, Mitchell & Co., in its system of examination and exchange of credit information for Group 1 of the New Jersey Bankers' Association, consisting of the banks of Middlesex County, including such towns as New Brunswick, Perth Amboy, and South River. This firm of accountants has itself had charge for a period of years of securing and giving out credit information which pertains chiefly to facts ascertained from the banks of Group 1 concerning loans already extended. A bank desiring to learn the loans of other banks to a given applicant, inquire of the firm of accountants, stating at the same time the amount which the applicant owes the bank in question. The accountants, before replying, revise their files touching the borrower concerned by direct inquiry to all the banks in the group.

The plan also makes provision for a thorough examination by the accountants of the banks within the group. During the course of the examination the examiner meets with the board of directors or a committee of the same and together they go over the loans. Upon completion of the examination a full report is prepared by the examiner and delivered to the president of the bank. Space is provided upon which the directors are to sign their names after reading the report, which may include, if occasion require, brief recommendations concerning improvements in the system and records of the bank.[1]

[1] Andrew A. Benton, *New Jersey System of Group Bank Examinations*, Proceedings, Eighth Annual Convention, New Jersey Bankers' Association, 1911, pp. 48, 49.

It is a merit of the New Jersey plan that its adoption is an encouragement to borrowers to employ chartered accountants to certify to the statements submitted to bankers when application for accommodation is made.

According to an officer of one of the leading banks concerned, this system has been very satisfactory and the credit bureau very beneficial.

Of the various forms of internal examination of banks the future will probably witness the most marked development and spread of examination by directors. It is clearly recognized that the character of the loans and discounts is the crux and core of safe and profitable banking, and state legislators, particularly, are becoming conscious of the protective and purging value of examinations made by a bank's own directors.

The Michigan banking law makes "it mandatory upon the directors of each State bank to appoint an examining committee from among their number, or from among the stockholders, to examine, every six months, the affairs of their respective banks, requiring the report of such examination to be spread upon the directors' records and forwarded to the Commissioner of the Banking Department. Anything tending to require greater diligence on the part of the directors in the management of the banks under their control works for the betterment of the bank, making violations of the statutes less likely. Such examinations are a guarantee to the Department that the assets examined and verified by its examiners, are bona fide, and that their character is thoroughly understood by the directors. This, in a large measure, corrects the difficulty heretofore experienced by the Department, in this, that the

examiner being unacquainted with local credit lines and securities was unable to ascertain and report the value of many of the assets of the bank examined."[1]

Our bank directors have it within their power greatly to improve the quality of American bank loans and investments.

Conclusion

Numerous as are the forms of examination, varied as are the jurisdictions, there is still an inadequacy of supervision, but an inadequacy of quality rather than quantity. Not until the national and state supervising agencies, coöperating with each other and with clearing house examiners, are able to cope on a large scale with excessive and multiple borrowing as effectively as have the clearing house examiners in our leading cities already done, can it be maintained that further reform and progress are not greatly to be desired. The extension of the work of the credit bureau as already well begun by states like New York and Indiana, the placing of the compensation of examiners on a salary basis, as has been done by Pennsylvania, Minnesota and the federal government, the elimination of politics from appointments, more frequent and active participation of directors in examinations under whatever auspices,—these are the things needed.

[1] Report of the Commissioner of Banking for the State of Michigan, 1907, p. xviii.

APPENDIX A

QUESTION, EXERCISES, AND PROBLEMS

CHAPTER I

1. Define bank credit.

2. In what sense is a bank acceptance bank credit? In what not?

3. What circumstances, if any, justify the application of the term bank credit to deposits?

4. Indicate points of similarity and of difference between bank credit and commercial credit.

5. What is the legitimate scope of bank credit extension?

6. Compare or contrast the banking danger involved in investments in bonds and that involved in investments in frequently turned promissory notes.

7. Explain the increasing tendency of borrowers to rely on continuous bank loans.

8. Is continuously floating paper marketed by note brokers liquid?

9. What would failure on the part of a bank customer to reduce his loans to a low ebb at least once a year indicate with reference to permanent capital in the business?

10. Under what conditions are commercial banks justified in lending heavily to non-seasonal borrowers, *e. g.*, tanners?

CHAPTER II

1. What is a balance sheet or financial statement of a bank?

2. Why is capital a liability?

3. Contrast the financial plan of a representative bank with that of a representative non-banking business corporation. Account for the difference. (By financial plan is

meant the way in which capital is raised, whether by bonds, preferred stock, common stock, etc.) Would the business of receiving deposits argue against the issue of bonds by a bank? Why?

4. Why does the Fletcher American National Bank of Indianapolis keep balances on deposit with New York, Chicago and other banks?

5. Is "exchange" an asset or liability? An overdraft? Why?

6. What forces restrain the banker in executing a liberal loan policy?

7. Ought a reserve be required against United States deposits? Against amounts due to other banks? Cashier's checks? Why?

8. Define bank surplus. How does it differ from capital? From undivided profits? Is surplus ever cash?

9. An applicant for credit at a bank was told by the cashier that the bank might lend him a part of its surplus. Criticise the cashier's statement.

10. If you were given a free hand in the examination of the affairs of a bank, how would you proceed to ascertain the amount of (a) capital, (b) surplus, and (c) undivided profits?

11. National and state banks and trust companies becoming members of the Federal Reserve system are required to purchase Federal Reserve bank stock equal to 3 per cent of their combined capital and surplus and to subscribe for an equal amount additionally. Are there any other items in the balance sheet as fixed in amount as capital and surplus?

12. A bank has a capital of $100,000, surplus and profits of $74,124.38. Its paid up stock in the Federal Reserve Bank of Chicago is $4,500. What is the amount of the surplus?

13. What is double liability? Illustrate.

14. Which of the national bank balance sheets here

given represents the greater protection afforded depositors, assuming, of course, that the book values represent the actual values and that the shareholders are fully responsible for the double liability attaching to their stock?

No. 1

Loans and Discounts	$1,000,000	Capital	$ 25,000
Other Assets	200,000	Surplus	150,000
Cash	100,000	Undivided Profits	25,000
		Notes, etc.	100,000
		Deposits	1,000,000
	$1,300,000		$1,300,000

No. 2

Loans and Discounts	$1,000,000	Capital	$ 100,000
Other Assets	100,000	Surplus	20,000
Cash	100,000	Undivided Profits	5,000
		Deposits	1,000,000
		Notes	75,000
	$1,200,000		$1,200,000

15. What is reserve liability? Why was the principle introduced? Is it superior to double liability from the standpoint of the shareholder? From the standpoint of the public?

16. The National Bank Act limits the loans of a national bank to 10 per cent of its combined capital and surplus (and to 30 per cent of its capital) to an individual, firm or corporation. A certain national bank having capital of $50,000, surplus of $75,000 and undivided profits of $10-, 685.20 desires to reduce the legal limit above referred to as a means of finding a pretext for holding certain "sick" borrowers in check. How can the limit be reduced through a bookkeeping operation?

17. What are concealed assets?

18. Cite methods of concealing assets.

19. Why are assets ever concealed? Why are liabilities concealed? Why are assets more likely to be concealed in banking than in non-banking business enterprises?

20. Items relating to the banks of Greenville, S. C., at the close of business September 12, 1919.

Name of Bank	*Capital*	*Surplus and Undivided Profits*	*Deposits*	*Year Organized*	*Market Value of Stock*
American Bank	$ 75,000	$256,203	$ 866,823	1890	150
Bank of Commerce	100,000	43,000	1,026,232	1906	135
Farmers & Merchants Bank	50,000	26,669	943,459	1907	145
First National Bank	100,000	148,997	2,121,260	1872	270
Norwood National Bank	250,000	358,967	3,657,684	1907	275
Peoples National Bank	200,000	209,799	2,112,394	1887	200

Assume capital, surplus and undivided profits to be accurate criteria of bank stock values and calculate which stock in the list given would represent the greatest investment worth at the price quoted. Which would be second choice? Third, fourth, fifth, sixth?

21. The Hanover National Bank of New York has a capital of $3,000,000 and combined surplus and undivided profits of $18,000,000. If it pays dividends at the rate of 32 per cent per annum, at what price, roughly, ought the shares to sell in the market?

22. (a) A bank having a capital of $150,000 declares a six per cent semi-annual dividend. Title to 100 shares is the subject of litigation and the dividend thereon is unpaid. The remaining dividends are paid by cashier's checks. State the effect of the dividend payment on the balance sheet.

(b) Ought a bank to be required to hold a reserve against all dividend checks outstanding? Why?

23. A bank having total resources of $975,000 is ambitious to overtop the million mark. How would its total resources and liabilities be affected if it borrowed $25,000

from a correspondent bank and then made an addition to its loans of $30,000, two thirds of the proceeds being drawn against by check and surrendered through the clearing house to other banks?

24. Which balance sheet subjoined indicates the more liquid banking condition?

No. 1

Unsecured Loans (Average time 90 days)	$ 400,000	Capital	$ 75,000
		Surplus	175,000
Real Estate Loans	400,000	Undivided Profits	50,000
Bonds of Foreign Governments	50,000	Deposits	700,000
Union Pacific Railway Bonds	50,000		
Real Estate	50,000		
Cash	50,000		
	$1,000,000		$1,000,000

No. 2

Unsecured Loans (Average time 90 days)	$ 800,000	Capital	$ 50,000
		Surplus	25,000
Railway Bonds	50,000	Undivided Profits	25,000
Real Estate	50,000	Deposits	900,000
Cash	100,000		
	$1,000,000		$1,000,000

25. Arrange the following items as a balance sheet:

Banking House	$ 20,000	Other Assets	$ 14,318
United States Bonds	40,000	Loans and Discounts	285,408
Due to Banks	23,626	Demand Deposits	56,660
Circulating Notes	40,000	Undivided Profits	1,514
Cash	17,818	Surplus	20,000
Due from Banks	32,188	Capital	50,000
Time Deposits	217,932		

Draw up a new balance sheet after the following transactions have been completed:

a. Lend $2,000 for 6 months at 6%, one fourth in cash and three fourths in deposits.

b. Sell $2,000 worth of other assets for $2,500.

c. Pay dividend of 4%, one half the amount being left on deposit; one half in cash.

d. Assume a customer having a balance of $300 remits check for $310 to Cleveland, whence, after passing through a correspondent bank there, it is returned to this bank and honored.

e. Buy a new vault for $3,000, giving in payment a New York draft.

f. Receive deposits of $10,000; $4,000 in greenbacks and gold and silver certificates, $1,000 in notes of this bank, $3,000 in checks on other banks, *and $2,000 in checks on this bank.*

g. Pay by cashier's check a claim for damages of $225.

h. Sell at a discount of 3 per cent $2,500 of six months paper, bought from a note broker and having three months to run, and leave the proceeds on deposit with a correspondent bank.

i. Rediscount $5,000 eligible paper at Federal Reserve Bank, taking one fifth in Federal Reserve notes and four fifths as deposit credit.

26.

Resources		*Liabilities*	
Loans	$ 800,000	Capital	$ 50,000
Securities	50,000	Surplus	50,000
Real Estate	20,000	Undivided Profits	20,000
Due from Banks	30,000	Due to Banks, etc.	80,000
Reserve	100,000	Deposits	800,000
	$1,000,000		$1,000,000

(a) What would be the effect on the balance sheet given above if the bank to which it pertains, introducing more detailed and more exact accounting methods, discovered that the balance sheet was correct except that discount collected but unearned amounted to $2,000 and that interest earned but not collected amounted to $1,000?

(*b*) Why is interest earned but not collected an asset? Why and to whom is discount collected but unearned a liability?

(*c*) Would the discovery of an excess of discount collected but unearned over interest earned but not collected have the same effect on the item of undivided profits as would an actual loss of equal amount? Would such a discovery have the same effect on the economic interests of the shareholders as would an actual loss? Why?

(*d*) This bank institutes the practice of making an accounting allowance for taxes accrued, which amount to $138.00. Indicate the changes involved in the balance sheet.

CHAPTER III

1. Would the deposit of checks on other banks be as acceptable to you, if a banker, as would the deposit of actual cash? Why?
2. What is the "riddle" of banking?
3. Explain the manufacture of bank credit as described by Horace White and others.
4. Why would the acquisition of a "cash" deposit of a million dollars by the Liberty National Bank of New York be an insufficient basis for a loan and deposit expansion of several times the amount?
5. Develop the formulas $X = \frac{c(1-R)}{R}$ and $D = \frac{c}{R.}$
6. Distinguish between primary and derivative deposits.
7. A Vermont banker says, "We have a customer who

keeps an average balance of $5,000, and makes deposits and checks out each day. He comes in and hires $2,000 because of a shipment of goods totaling this amount and pays invoice. As far as we know he used this $2,000, but he may have paid from the $5,000, leaving his promissory note to keep up the average balance." Would this kind of operation fly in the face of our conception of derivative deposits? Why not?

8. Why does the ratio of derivative deposits to loans vary more widely from borrower to borrower than from bank to bank?

9. Enumerate the principal factors affecting the derivative deposit-loan ratio.

10. Why, in general, is the derivative deposit-loan ratio higher in the case of city banks than in country banks?

11. Draw asymmetrical derivative deposit curves representing loans of varying maturities to show that the volume of derivative deposits for a given bank tends to remain constant over a period of time.

12. "Some concerns," says a Chicago banker, "borrow very heavily for a short period of the year, say from four to not over seven months, during which time they not only use these loans, but every penny of available balance. On the other hand, during from five to eight months of the year they carry large balances and do not borrow. Such accounts will invariably show better than a 20% average balance against the average loan if taken over a period of twelve months, yet during the life of the loan the balance is nil."

Would it be legitimate to say, from the standpoint of one who is attempting to give an exposition of banking theory, that the derivative deposits in this case are simply zero and that, if all the bank's customers were of this type, the aggregate volume of primary deposits of the bank would tend to be uniform?

13. Some concerns customarily borrow "practically their

own money; in other words, their balances would equal or perhaps exceed the amount they are borrowing, but they need such balances. . . ."

What is the derivative deposit-loan ratio maintained by such borrowers?

14. "A given concern feels that they need a balance of say $25,000.00 to care for the ordinary turnover of their business. They will keep that balance when they are not borrowing, and when the exigencies of their industry tend to deplete the balance they will borrow from time to time in order to maintain it constantly at approximately the predetermined figure."

What would the derivative deposit-loan ratio be in this case?

15. "Theoretically," says a California banker, "your diagram (Number 1) contains all the desirable points, but in practice you will find that it does not work out, for generally when a man borrows money he has incurred the indebtedness previously and to save interest would put off payment as long as possible, and then probably pay it out all in one sum. . . . Further, when a man borrows money, especially a business man, he anticipates the probable date when he will collect certain sums and so times his loan to take care of the period only; so he does not in practice, pile up money in anticipation of paying the loan."

If the synchronism, or concurrence of events, here involved was imperfect or incomplete, would derivative deposits emerge?

May we not truly say that complete or perfect synchronism would exist only theoretically, using "theoretically" in the sense in which the California banker uses it?

16. Why is c_1, in connection with the formula for the determination of individual bank loan expansion traceable to additional primary deposits, equal to $(1-k)x$? Why is c_1 also equal to $c-rc-krx$?

17. Memorize the formula $x = \frac{c(1-r)}{kr+1-k}$.

18. A New York bank whose borrowing customers on the average leave 15 per cent of their loans on deposit has a reserve-deposit ratio of 13 per cent. How great an addition to its loans can be made as a result of the acquisition of new deposit accounts of $500,000?

19. Under what conditions will the loan expansion rendered practicable by a primary deposit acquisition be equal to that acquisition?

20. What qualification of the formula, $x = \frac{c(1-r)}{kr+1-k}$, is called for in connection with banks in one-bank towns? What circumstances minimize the importance of this qualification?

21. As a result of amalgamations London Clearing House banks have been reduced in recent years from almost a score to seven. Have the consolidations increased the amount that any one of the banks can safely lend as a result of acquiring additional deposit accounts?

Does bank amalgamation, by increasing size of bank, render a reduction in the reserve-deposits ratio possible without impairing the power to meet deposit liabilities on demand? If a bank had only one depositing customer, how large a reserve would be needed?

If bank amalgamation in England should continue until two banks of equal banking power had all deposit and loan accounts, how would that fact be reflected in the overflow cash of either bank?

22. If the nineteen chartered banks of Canada became completely merged, it would be as if the derivative deposit-loan ratio of the amalgamated institution were 100 per cent. Explain.

Substitute 100 per cent for k in the formula for determin-

ing individual bank loan expansion on the basis of cash acquired through deposit and calculate the loan expansion of such a bank as mentioned above, using $1.00 for c and 10 per cent for r.

23. A typical American bank can ordinarily increase its loans by an amount approximately equal to an addition to its primary deposits on the basis of a new cash acquisition, but our banks taken in the aggregate, and without assistance from bankers' banks, would be able to increase their loans by approximately nine times the newly acquired cash. Explain and illustrate by diagram.

24. Illustrate diagramatically the way in which new cash becomes distributed as the basis of manifold loans and deposits in the banking system, assuming a reserve-deposits ratio of 20 per cent and a derivative deposit-loan ratio of 25 per cent.

25. The multiplicative importance of reserves in relation to loans and to deposits in the banking system is not traceable to the fact that borrowers withdraw less than 100 per cent of the proceeds of their loans. Substitute zero for k, one dollar for c, and 50 per cent for r in the formula for determining the individual bank loan expansion on the basis of a deposited cash acquisition, and in accordance with your results draw a diagram, modeled after number 3, showing the way in which new cash, under homogenous conditions throughout the banking system, would be distributed and become the foundation of manifold loans and deposits.

26. Are the deposits of a bank the offspring of its loans or are its loans the offspring of its deposits, *i. e.*, cash or its equivalent deposited?

Consider the same question in relation to the banking system.

27. A country bank, bank A, has $10,000 in cash and $100,000 in each deposits and loans. A neighboring bank,

B, has $20,000 in cash and $200,000 in each deposits and loans. A depositor withdraws $10,000 in gold from bank B and lodges it with bank A. Would the cash of bank A now constitute potential support for $200,000 each of loans and deposits? Why not?

28. Would the purchase by a bank of newly issued bonds tend to swell the deposits of (a) that bank and (b) the banking system as would the extension of credits to customers? Explain.

29. Do deposits and loans tend to be equal in an individual bank because loans arise out of deposited cash or its equivalent?

30. Why are deposits and loans in the banking system approximately equal?

Would a doubling of our bank capital in United States, with reserves assumed to remain fixed in amount and in percentage, tend to affect the volume of loans but not that of deposits? Explain.

31. Explain the way in which the withdrawal of cash from an individual bank effects a widespread contraction of loans and deposits.

32. Refute the contention that banks can afford to maintain expensive establishments, to supply stationery and render other services because they can lend ten dollars as a result of receiving one on deposit?

33. Describe the way in which an individual bank with relatively heavy deposits, large surplus reserves and small volume of loans becomes assimilated to the system.

34. Develop the formula $x = \frac{c}{kr+1-k}$. Would a given bank be able to lend more or less than the application of the formula would indicate if other banks in the system were *expanding* their loans, either as a result of additions to their reserves or as a result of a reduction in the re-

serve-deposits ratio? If other banks were *contracting* their loans? Explain.

35.

Assets		*Liabilities*	
Loans and Discounts	$200,000	Capital	$ 50,000
Bonds	50,000	Surplus	50,000
Banking House	25,000	Undivided Profits	25,000
Other Assets	25,000	Deposits	210,000
Cash	210,000	Other Liabilities	175,000
	$510,000		$510,000

The bank whose balance sheet is given above *normally* maintains a reserve-deposits ratio of 10 per cent and its customers on the average leave 10 per cent of their loans on deposit. What is the amount of its surplus reserve? How much can it increase its loans without impairing its normal reserve-deposits ratio?

Draw up the balance sheet after the loans have been made and the proceeds drawn upon.

36. Apply both formulas, $x = \frac{c\,(1 - r)}{kr + 1 - k}$, and $x = \frac{c}{kr + 1 - k}$, in problem 35 and observe that the results are identical.

37. What is the three-fold process by which a normal ratio of reserves to deposits is reached in an individual bank? The two-fold process, in the banking system?

CHAPTER IV

1. Explain carefully why a given bank tends to retain its cash despite liberal lending, if all other banks are following an equally liberal lending policy.

Substantially the same result would ensue if some banks

in the system were investing in new banking houses or long term bonds, instead of increasing their loans. Why?

2. The banker regulates his cash-deposits ratio through his control over cash. If his cash-deposits ratio fell below the limits of law or prudence, would it be practicable to increase it by securing new primary deposits? By new derivative deposits?

3. Reserve and deposits in an individual bank are mutually determinative. Explain.

4. What force or forces impel the banker to contract his loans when cash runs low? What when cash is plethoric?

5. If, in the banking system as a whole, loans and deposits are a function of cash, why are the loans and deposits of an individual bank not a function of cash?

6. Comment upon whatever mutual determinism may exist between cash and deposits (and therefore loans) in the banking system regarded as an aggregate.

CHAPTER V

1. Why would the accumulation of bank surplus, if that surplus were always matched by cash, result in weakening the protection of depositors in our national banks?

2. A new bank has reserves equal to its loans and to its deposits, and surplus reserves equal to its surplus. If it is brought, through an extension of its loans, into harmony with the system as to the reserve-deposits ratio, would the new loans be several times the reserve or would the reserve become only a fraction of the new loans? What would be the relation of the surplus reserve to surplus after the new loans were made and the deposited proceeds drawn upon by check?

3. Why does surplus represented by cash in an individual but not isolated bank cease to be represented by cash when loan expansion founded on that cash occurs?

4. Show, by reference to a consolidated balance sheet, what takes place within a banking system when surplus is accumulated in relation to cash and creditor liabilities.

5. State and explain the causal relation between cash and deposits and between deposits and surplus.

6. Enumerate (a) factors or forces that admit of a reduction in ratio of cash to deposits without impairing the immediate convertibility of deposits and (b) factors that make for a lower ratio of surplus to creditor liabilities without reducing the chances of the ultimate payment of those liabilities.

7. In what sense is bank reserve "barren"?

8. What are the facts in regard to the proportion of loss to the total deposits in national banks, 1881–1919?

9. Comment upon the relation of the protective items to deposits in our national banks January, 1914, and June, 1919, as shown in the subjoined table.

	Capital Surplus and Undivided Profits	*Deposits*
January, 1914.....	$2,049,783,151	$ 8,393,372,772
June, 1919.....	2,363,478,000	15,924,865,000

10. The dependence of immediate convertibility of depositors' claims upon a cash reserve is of a different order from the dependence of the ultimate convertibility of creditors' claims upon surplus and other protective magnitudes. Explain.

11. Compare the first Bank of the United States, 1811, and the second Bank of the United States, 1829, as to (a) immediate convertibility of notes and deposits and (b) ultimate convertibility of creditor liabilities, as below.

First Bank of the United States

(Incorporated by Congress in 1791 for 20 years)

(In millions of dollars)

Resources	*January, 1811*	*Liabilities*	
Loans and discounts	$14.6	Capital	$10.0
U. S. 6 per cent and other United States stock	2.8	Surplus	.5
Due from other banks	.9	Circulation	5.0
Real estate	.5	Individual deposits	5.9
Notes of other banks	.4	United States deposits	1.9
Specie	5 0	Due to other banks	.6
		Unpaid drafts outstanding	.2
	$24.2		$24.2

Second Bank of the United States

(Chartered by Congress in 1816, for 20 years; renewal of charter denied; reorganized as a Pennsylvania corporation. The bank assigned in 1841, final liquidation taking place in 1856, when depositors and note holders were paid in full, interest and principal; the shareholders, however, receiving nothing on their investment.)

(In millions of dollars)

Resources	*1825*	*1829*	*1832*	*Liabilities*	*1825*	*1829*	*1832*
Loans and Discounts	$31 8	$39 2	$66 3	Capital	$35 0	$35 0	$35 0
Stocks	18 4	16 1		Circulation	6 1	11 9	21 4
Real Estate	1 5	2 3	2 1	Deposits	12.0	17.1	22 8
Banking house	1 9	1.6	1.2	Due to foreign banks, etc	2.4	1.4	
Due from foreign bankers		.5	.1	Due to state banks			2 0
Due from state banks	2.1	1 7	3 9	Other liabilities	8.0	3.4	1 6
Notes of state banks	1.1	1.3	2 2				
Specie	6 7	6 1	7 0				
	$63.5	$68.8	$82.8		$63.5	$68.8	$82.8

What was the comparative condition of the second Bank of the United States as to (a) immediate convertibility of notes and deposits and (b) ultimate convertibility of creditor liabilities in 1825, 1829, and 1832?

CHAPTER VI

1. What is the essential difference between a bankers' bank and a commercial bank?

2. How do bankers' banks dilute cash reserve?

3. Why is the term "reserve deposits" not a contradiction in terms?

4. (a) Why do reserve deposit liabilities tend merely to be transferred from the credit of one group of member banks to the credit of other member banks as a result of lending and checking operations and not to be withdrawn from the Federal Reserve banks when member banks expand their loans and deposits?

(b) January 1, 1920, the Federal Reserve banks had surplus reserves of almost exactly .35 of a billion dollars. The same banks were required to maintain a 35 per cent reserve against deposits. How much paper could they rediscount without reducing their reserves below the legal minimum if the member banks took the entire proceeds in deposits?

5. Notes of the leading central banks (bankers' banks) of Europe are eligible for use as reserve by the commercial banks. How would an expansion of notes of those central banks differ in effect from an expansion of Federal Reserve notes?

6. Federal Reserve notes, through a monetary division of labor, make it possible for lawful money to be used in its most inflationistic capacity. Explain fully.

7. What determines whether proceeds of rediscounts or of loans will be taken by the member banks in Federal Reserve notes or in deposits?

8. Through what channels do Federal Reserve notes get into circulation?

9. Why would maximum bank credit expansion on the books of member banks take place if Federal Reserve note

issues were kept at a minimum while deposits of Federal Reserve banks were extended to a maximum?

10. Draw a diagram showing the quantitative relation that would obtain between cash reserves in the Federal Reserve system and deposits of member banks if all loan expansion of the Federal Reserve banks took the form of deposits to the exclusion of notes.

11. Is the future credit expansion of member banks limited by existing surplus reserves of the Federal Reserve banks? Why?

12. What change or changes in the method of regulating the reserve-deposits ratio of commercial banks did the establishment of the Federal Reserve system make possible?

13. Hold in mind the provision of the Federal Reserve Act that one Federal Reserve bank may rediscount for, i. e., lend to, another and point out the way or ways in which the ratio of cash to demand liabilities *may be* regulated in the case of an individual Federal Reserve bank, and the way or ways in which that ratio *is* regulated in the case of the twelve regional banks taken as an aggregate.

14. Compare the volume of bills discounted by the Federal Reserve banks for their members, as given in the table on page 115, with the volume of reserve deposits on the books of the regional institutions, as given in diagram 4, page 109.

15. Make a study of the application of the formulas $x=\frac{c(1-r)}{kr+1-k}$ and $x=\frac{c}{kr+1-k}$ to the operations of a Federal Reserve bank.

16. Why would a rediscount rate of 10 per cent be effective in checking over-extension of loans of member banks even when all banks were expanding their loans simultaneously?

17. Indicate the relation of the rate of rediscount to (a)

volume of loans of member banks, (b) deposits on the books of member banks, and (c) the volume of trade.

18. What would be the effect upon general prices, if, during a period of rising prices and of great industrial and commercial activity, such as precedes a crisis or stringency, an addition of 10 per cent to the loans and deposits of commercial banks was offset by no perceptible expansion in the *physical* volume of trade, available productive energy having been almost fully utilized previously?

19. If during the early stages of industrial revival, after a depression following a crisis or stringency, with labor and capital only partially employed, a 10 per cent expansion of bank loans and deposits were matched by a corresponding expansion in the *physical* volume of trade, what would be the tendency in the course of general prices?

20. Which is the more nearly accurate form of statement: An expansion in bank loans and deposits *causes* a rise in prices, or that such an expansion *makes possible* a rise in prices?

In answering do not overlook such considerations as the following: Any circumstance (e. g., additions to our stock of money metal, the issue of fiat money, a reduction in reserve requirements, increased use of checks), that tends to increase surplus reserves would tend temporarily to reduce the rate of interest, increase business profits, and stimulate business expansion. The increased demand for raw materials, labor and commodities, would result in higher prices and rising profits. Rising profits would give a further impulse to demand for goods and prices would rise still further. As prices rose a heavier and heavier demand would be made upon the banks for credit with which to finance the increased volume of trade. In time, as a result of increased bank loans and deposits, the reserve-deposits ratio would become strained, interest rates would rise to a high point, and expansion be brought to a halt. The crest of a wave of prosperity would

be reached and passed. (For an exhaustive treatment of the business cycle, see Wesley C. Mitchell's admirable work *Business Cycles*, The University of California Press, 1913. Pages 571–579 contain a summarized statement of the theory there developed.)

21. What distinguishes the work of Federal Reserve banks from that of national and state banks acting as bankers' banks before 1914?

CHAPTER VII

1. The use of endorsed paper led to endorsing for accommodation. Explain.

2. What was the composition of the American banker's portfolio contents in 1860? In 1880?

3. Give an account of the forces underlying the development of single name paper.

4. What main developments are shown in diagrams 4 and 5?

5. What are the facts concerning the note-brokerage business before the Civil War?

6. State the effects of the depreciated and fluctuating greenbacks upon the note-brokerage business 1862–79.

7. Describe the progress of note brokerage in the eighteen hundred and eighties.

8. Compare the method of handling paper before 1895 or 1900 with that of 1920. Under what circumstances do the note brokers perform a banking function?

9. Comment on the time and circumstances of the breaking down of the barrier that had previously prevented eastern capital from flowing to the West through note-brokerage channels.

10. Characterize the growth of the note-brokerage business after 1900.

11. The success of the brokers in weaning borrowers away

from banks created a corresponding demand among banks for the paper purchased. Explain.

12. What degree of concentration marks the note-brokerage business?

13. Briefly describe the internal organization of a modern commercial paper house.

14. What is the causal connection between the seasonal demands for funds in United States and the growth of note brokerage?

15. Branch banking is opposed to the development of note brokerage. Explain.

16. State the comparative importance of the bill broker in England, France, and Germany.

17. What is the main purpose of the credit department?

18. Describe the progress made in credit research 1890–1900; since 1900.

19. What forces have underlain the development and spread of the credit department?

20. Sketch the rise of the new business department and indicate the relation between new business and credit departments.

21. How has the Federal Reserve system affected (a) the kinds of our bank loans and (b) their quality?

22. The Federal Reserve banks have been called the balance wheel of the open market for bank acceptances. What is the significance of the statement?

23. Our discount companies in New York frequently borrow in order to carry their holdings of paper. Their usual trading profit is said to be 1/16 of 1 per cent per annum. If a discount company is compelled at any time to pay 6 per cent for borrowed capital, call money, how long a time would be required to wipe out the profit of 1/16 of 1 per cent on a sixty day bill bought at 4 per cent discount?

24. The Guaranty Trust Company of New York has frequently bought its own acceptances in the open market.

Why might an institution buy its own acceptances in preference to those of a competing bank if there was no difference in the discount rate?

CHAPTER VIII

1. What is a borrower's credit worth?

2. Under what conditions may character become relatively inconspicuous as one of the pillars upon which bank credit rests?

3. Enumerate the principal quick assets appearing in the borrower's statement; the principal fixed assets.

4. Is the difference between quick and slow assets one of degree or of kind, or both? Defend your answer.

5. What amount of cash may be said to "balance" the borrower's statement?

6. How may the cash item be adulterated?

7. What is the imprest cash system?

8. Comment upon the relation of the size of the bank balance of the borrower to the season or seasons of his trade.

9. What is meant by "rigging" the cash?

10. Justify the requirement that a borrower keep a balance equal to 15 to 25 per cent of his loans.

11. How can the records of a bank be made useful in throwing light on the cash at times other than on statement dates?

12. In what trades does the note still hold its own against the encroachment of the open account?

What would notes in other lines of trade indicate?

13. Discuss the relation of notes and accounts receivable to the volume of sales.

14. What questions are best designed to enlighten the banker as to the quality and value of the borrower's accounts receivable?

15. Why is the open account preferable to the note from the standpoint of taking quick legal action?

16. Why is it desirable to have an audit by accountants or special appraisers follow closely the annual or periodic inventory?

17. What is the banker's interest in the location of the goods inventoried?

18. Inventories vary widely according to the method of valuation. Illustrate.

19. What is the most approved basis of inventory valuation?

20. Why should the banker object to the omission of *both* goods bought and the liabilities therefor?

21. What is the objection to valuing unfinished goods at cost?

22. What are the main facts for the banker to bear in mind in connection with the valuation of real estate, plant and machinery?

23. For what should the bank credit man be on the lookout in scrutinizing the item stocks and bonds?

24. Lay down guiding principles in the appraisal of patents, trade-marks and good-will.

25. What are deferred assets? Give examples.

26. Discuss life insurance as a contingent asset.

CHAPTER IX

1. Classify the following liabilities as either current or slow: interest on bonds, reserves, sinking fund requirements, taxes, due from subsidiaries, dividends declared but unpaid.

2. What is the significance of a large amount of bills payable in lines of business in which open accounts ordinarily prevail?

3. What is the desirable relation between bills payable to banks and bills or accounts receivable?

4. Why is it desirable for the lending banker to know the maximum amount borrowed from all sources during the previous fiscal year?

5. Why is the amount of "bills payable for paper sold" less likely to be understated now than in 1905?

6. Indicate the importance to the banker of discovering how the amount of accounts payable is ascertained.

7. If offsetting accounts payable by accounts receivable does not change the net worth, why is the practice objectionable?

8. What phases of "bonded debt and interest thereon" ought especially to engage the attention of the banker?

9. What is the significance of an overlapping mortgage? Of a thin equity?

10. (a) Why does the item "deposits of money with us" deserve close scrutiny?

(b) What is the answer to the contention of those who urge that this item indicates additional security, as those closely interested are shown to be willing to entrust their money to the concern in question?

11. To treat contingent liabilities as current liabilities is very unfavorable to the borrower. Explain.

12. Give examples of accrued liabilities. How do they differ from deferred liabilities?

13. What importance, if any, is to be attached to the absence of accrued liabilities in the borrower's statement?

14. Distinguish capital and surplus from net worth. Why should the lending banker be interested in the size of the proprietorship interest?

15. Comment upon the proper ratio of quick assets to current liabilities. Cite cases in which variation from the usual ratio would be justifiable?

16. If you were a lending banker, whom would you require to keep the higher ratio of quick assets to current liabilities, a wholesale grocer or a wholesale milliner? Sugar

planters or roasters and jobbers of coffee? Retailers of hardware or of groceries and green vegetables? Why?

17. A given firm shows the following condition:

	Feb. 1st	April 1st
Cash	$ 20,000	$ 7,000
Bills Receivable	120,000	63,000
Merchandise	220,000	170,000
Total Quick Resources	$360,000	240,000
Accounts Payable	$110,000	$ 40,000
Other Current Debts	90,000	40,000
Total Current Debt	$200,000	$ 80,000
Ratio of Quick Assets to Current Liabilities	180 per cent	300 per cent

(a) How might the condition of April 1st grow out of that of February 1st?

(b) If the borrower submitted the figures for April 1st as a part of his statement to his banker, what additional information or maximum figures for the year would place the banker in a position to avoid lending, the condition of February 1st being normal?

(c) Would this extreme case indicate that the ratio of quick assets to current obligations ought itself to be tested?

18. Statements of a given concern for two successive years show the same ratio of quick assets to current liabilities, but the ratio of merchandise to receivables is 3 to 2 the first year and 2 to 3 the second. If merchandise is carried at *cost* and receivables at their face value, which includes profit on merchandise sold, which year's statement is the stronger from the standpoint of the lending banker?

19. Working capital is quick assets minus current liabilities. Why might a period of depression have very adverse

effects upon a concern whose ratio of working capital to fixed assets was low?

Would an examination of the yearly changes in this ratio throw light on whether the concern was gradually converting quick into fixed assets?

20. What is a proper or safe relation of net worth to credit worth?

CHAPTER X

1. What is the effect upon profits of capitalizing repairs and maintenance? Of charging additions and betterments to repairs and maintenance?

2. What is the advantage to the banker of comparing the borrower's income accounts over a period of years?

3. What advantage in analyzing the income account has the large bank with several customers in the same line of trade over the small bank whose customers are few?

4. On what grounds does the lending banker object to the borrower's failure to insure fire risks adequately?

5. What is the banker's interest in salaries paid and cash withdrawn?

6. How may "depreciation" conceal "unearned" profits? Mention other methods of concealing losses or slender earnings?

7. Characterize the financial and accounting policy of the New England cotton mills.

8. Compare or contrast the following lines of industry as to proper charges for depreciation: clothing manufacture, shoe manufacture, lumber manufacture.

9. Why is the item of sales important to the lending banker?

10. Five years ago firm A had receivables of $150,000 and sales of $900,000 per year, terms being 60 days net; this year, receivables are $120,000 and sales $1,000,000, terms

being 30 days net. In which case, presumably, is the quality of the receivables the higher?

11. What would be your interpretation of increasing sales from year to year coupled with a declining ratio of sales to merchandise?

12. Where sales terms are sixty days net, how would the sales to receivables ratio stand if the statement were as of a date representing the peak of the selling season? (Reminder: Sales relate to a *period* of time; receivables to an instant of time.)

13. If sales terms of a given firm having sales of $1,800,000 are two per cent discount in ten days and 30 days net, at what amount, roughly, ought the receivables to stand?

14. Why ought the credit man of the bank look carefully into the ratio of net worth to sales?

What is over-trading?

15. One manufacturer of brushes has a capital investment of $100,000, sales of $300,000 and net profits of $20,000. Another has a capital of $100,000, sales of $500,000 and net profits of $20,000. If the moral risk and other factors are equally good in the two cases, which manufacturer has the higher credit worth?

Which is the more important from the standpoint of the lending banker, the ratio of net profits to sales or the ratio of net profits to capital investment?

16. Why should an unbroken symmetrical gain in net profits put the banker on his guard?

17. Illustrate the importance of collateral information in regard to earnings.

18. Under what conditions may dividends be much less than earnings and still be improper?

19. Outline three or more reflex benefits of bank borrowers' statements.

20. Why do some borrowers refuse to render statements?

21. A wool house has the following assets and liabilities:

cash $189,000, accounts receivable $382,500, inventory $1,236,550, marketable securities $353,500, advances on wool bought $298,500, real estate $20,000, equipment and machinery $16,000, other fixed assets $9,000, bills payable $722,325, acceptances (payable) $216,510, accounts payable $831,550, reserves $294,000, deposits of money $64,500.

What is the ratio of quick assets to current liabilities? What is the net worth?

22. The following statement is that of a wholesale grocery house and is taken at a representative date:

Assets		*Liabilities*	
Cash	$ 406,826.32	Bills Payable	$1,100,000.00
Accounts Receivable	1,806,715.14	Accounts Payable	206,530.45
Merchandise	1,783,945.60	Money on Deposit	723,942.19
Real Estate	1,643,000.00	First Mortgage Bonds	1,500,000.00
Machinery, Trucks, Wagons, etc.	157,435.00	Preferred Stock	1,500,000.00
Good-will	1,000,000.00	Common Stock	1,000,000.00
		Surplus	767,449.42
	$6,797,922.06		$6,797,922.06
Sales	$19,448,860.00		

(a) What is the ratio of quick assets to liabilities?

(b) What evidence is there that the concern discounts its bills?

(c) What would the turnover indicate as to the quality of the merchandise?

(d) How much could be realized on good-will in the event of failure?

(e) The indenture covering the bonds overlaps from real estate to merchandise and other quick assets, but the assets back of the bonds are sound and saleable. Is the overlapping feature a weakness? What items in the state-

ment might cause a banker to suspect an overlapping indenture?

Are there any other elements of weakness in the statement?

(f) The moral risk being sound, what is the amount up to which you would be willing as a lending officer to extend further credit?

23. Draw up the financial statement of a corporation engaged in the manufacture of edge tools with a capital stock of $100,000 and other items of such magnitude and in such proportion as to give the concern a credit worth of $100,000, the moral risk being sound.

24. Calculate the credit worth of the American Agricultural Chemical Company whose certified balance sheet and income account are subjoined, assuming the moral risk to be excellent.

BALANCE SHEET, JUNE 30, 1919

INCLUDING SUBSIDIARY COMPANIES

Assets

Capital Assets:		
Land, Buildings and Machinery	$16,918,681.18	
Equipment and Floating Property	4,369,278.50	
Mining Properties	19,487,800.85	
Other Investments	6,411,521.15	
Brands, Trade-Marks, Patents, Good-Will, etc.	1.00	
Total Capital Assets		$ 47,187,282.68
Sinking Fund:		
For Redemption of Bonds	$ 3,513,111.22	
Less Bonds Purchased, Interest and Premium	3,512,076.05	
		$ 1,035.17
Deferred Assets:		
Unexpired Insurance, Taxes, Licenses, etc.	$ 379,345.60	
Guaranteed Accounts Receivable, incomplete new construction, expenditures chargeable to future operations, etc.	2,351,686.31	
Advance Payments, Merchandise Purchased	163,206 38	
		$ 2,894,238.29
Current Assets:		
Accounts Receivable	$26,168,066.54	
Notes Receivable	10,217,338.27	
Inventories (Merchandise and Supplies)	19,514,430 45	
Cash in Banks, on hand and in transit	2,526,184.44	
U. S. Bonds and Notes	2,225,000.00	
Total Current Assets		$ 60,651,019.70
		$110,733,575.84

Liabilities

Capital Liabilities:			
Preferred Stock	$50,000,000 00		
Less Unissued	21,615,800.00		
		$28,384,200.00	
Common Stock	$50,000,000 00		
Less Unissued	18,344,800.00		
		$31,655,200 00	
Total Capital Stock Outstanding			$ 60,039,400.00
First Mortgage:			
5% 20-Year Convertible Gold Bonds, due Oct. 1, 1928		12,000,000.00	
Less Bonds Purchased for Sinking Fund	$ 3,415,000.00		
Less Bonds Converted into Preferred Stock	1,142,000.00		
		4,557,000 00	
Total First Mortgage Bonds Outstanding			$ 7,443,000.00
Debenture Bonds:			
5% Convertible Gold Debenture Bonds, due Feb. 1, 1924		$15,000,000.00	
Less Bonds Converted into Common Stock		$ 3,739,900.00	
Less Unissued	5,900,000 00		
		$ 9,639,900.00	
Total Debenture Bonds Outstanding			$ 5,360,100.00
Deferred Liabilities:			
Reserve for Doubtful Debts and Contingencies	$ 532,832 64		
Reserve for Property Depreciation	1,241,126 96		
Reserve for Property Renewals	276,739 92		
			$ 2,050,699.52
Current Liabilities:			
Accounts Payable and Accrued Taxes	$ 2,855,011 03		
Notes Payable	12,887,500.00		
Notes Payable (secured by U. S. Bonds and Notes)	2,030,000.00		
Accrued Freights and Discounts	782,680.58		
Accrued Interest on Bonds	204,706.25		
Total Current Liabilities			$ 18,759,897.86
Surplus, June 30, 1919			17,080,478.46
			$110,733,575 84

INCOME ACCOUNT

FOR THE YEAR ENDED JUNE 30, 1919

Surplus at June 30, 1918			$16,394,829.90
Income (including profits of subsidiary companies) after deducting operating charges, Plus Taxes ($2,123,836 05) which include Federal Taxes for the Calendar Year 1918		$ 8,035,854.30	
Income from Other Sources		170,274.07	
Total Income		$ 8,206,128.37	
Deduct:			
Interest on Mortgage Bonds	$ 404,001 36		
Interest on Debenture Bonds	380,784.34		
For Freights, Losses and Contingencies	968,463.06		
For Factory Depreciation and Mining Depletion	2,294,209.52		
		$ 4,047,458.28	
Net Profit for the Year		$ 4,158,670.09	

Deduct:			
Dividends on Preferred Stock	$ 1,659,896.33		
Dividends on Common Stock	1,813,125 20		
		$ 3,473,021.53	
Surplus for the Year			685,648.56
Surplus June 30, 1919			$17,080,478 46

Profits and Dividends Since Organization, 1893

Total Profits to June 30, 1918		$53,679,003 66	
Profit for the year ended June 30, 1919		4,158,670.09	
Total Profits, June 30, 1919			$57,837,673.75
Deduct:			
Dividends on Preferred Stock	$25,752,923 12		
Dividends on Common Stock	7,047,692 37		
		$32,800,615 49	
Deductions to June 30, 1919		7,956,579 80	
			$40,757,195.29
Surplus, June 30, 1919			$17,080,478.46

25. Read carefully Appendix B and note any important considerations not dwelt upon in chapters VIII–X.

CHAPTER XI

1. Of what use would the Textile Trade Directory be to a credit man about to investigate the credit standing of a prospective customer engaged in the manufacture of woolens?

2. In what respects are the reports of mercantile agencies of value to the bank credit man?

3. Why is the class of firms from which a house buys goods a good index of credit standing?

4. Why does the mercantile credit man not begrudge time spent in being interviewed by the bank credit man?

5. What are the most important questions the investigator representing the bank credit department can ask? The most important single question?

6. In what ways may the banker avail himself of the advice of the trade expert?

7. State the main facts concerning banks as sources of credit information stressing (a) the reciprocal value of in,

quiries, (b) the credence of the banker's testimony, (c) the difficulty of obtaining first hand information.

8. Formulate interview questions bearing upon the following aspects of the bank customer's business:

Profits, dividends, business experience, reserves, life insurance, accounts receivable pledged, rate of interest paid on "money on deposit with us," proportion of capital paid in by notes, outside interests of partners, minimum bank borrowings, other bank accounts, sales and sales terms, contingent liability.

9. Describe the way in which the credit department of a metropolitan bank would investigate the credit standing of the Turnbull Wagon Company located at Defiance, Ohio.

CHAPTER XII

1. What are the principal classes of secured loans?

2. Compare the interest of the New York banker in securities offered as collateral with the interest of a banker at Baltimore, Indianapolis or El Paso.

3. Comment on the importance of safe or full margin in connection with collateral loans.

4. Why are life insurance policies superior to stocks and bonds as security?

5. What was the probable origin of loans on warehouse receipts as security?

6. What are the chief factors affecting the safety of loans on warehouse receipts?

7. What is the advantage to the banker of using receipts based on one bale lots in connection with cotton loans?

8. What rules may well guide the banker in making crop loans?

9. On what valuation ought an urban real estate loan to be made?

10. Why are vacant properties dangerous as security for loans? A costly property in a poor neighborhood?

11. Enumerate and appraise the most important circumstances affecting the value of farm land as security.

12. Why are loans on high-priced land likely to be sounder than those on low-priced tracts?

CHAPTER XIII

1. How does the "cash credit" of Scotland differ from the American overdraft?

2. Classify overdrafts with reference to the offenders.

3. What is the relation between bank competition and overdrafts?

4. Why are overdrafts an objectionable form of credit advance?

5. Compare national and state banks as to ratio of overdrafts to loans; trust companies and private banks.

6. Which rules given for controlling overdrafts would be of greatest value to a newly established bank? Which to an old institution?

7. Cite evidence that overdrafts are a function of bank supervision.

8. Would a bank examiner finding a customarily large overdraft item on the books of a bank under examination be justified in reversing his usual benevolent assumption that loans are sound?

CHAPTER XIV

1. Why is the country banker justified in giving more consideration to character and capacity and less to the capital of the borrower than would the city banker?

2. Compare the selective power exercised in the choice of customers by the First National Bank of Boston and the First National Bank of Wahoo, Nebraska.

3. Why does the balance of the typical country bank borrower run low as compared with the same in city banks?

4. Characterize the country banker's demand loans against collateral.

5. What are "sleepers?" Why are they more common in the country than in city banks?

6. Under what conditions might a country bank have no loans in its financial statement?

7. Under what conditions ought the banker to renew paper?

8. Why is single-name paper less productive of past-due paper than is double-name?

9. In what way is the note ledger a spur to prompt retirement of loans?

10. What other measures can you mention as conducive to prompt payment?

11. Under what conditions ought loans to tenants prove advantageous to the banker?

12. Is the country banker justified in charging higher rates than the city banker? Why?

CHAPTER XV

1. State and explain methods by which one bank may lend to another.

2. If unrated paper is that the maker of which is not rated by the mercantile agencies, why does it compare favorably with rated paper as collateral security in the estimation of the lending banker?

3. What is non-liability paper?

4. Along what lines does the representative of a metropolitan bank attempt to secure credit information at bankers' conventions?

5. The way in which a borrowing bank handles its ac-

count with the city correspondent is a significant indication of the character of the borrowing institution. Amplify.

6. Give an account of the method of investigation employed by a bank in New York preparatory to making a loan to one of its correspondents.

CHAPTER XVI

1. Account for the prevalence of the partnership form of organization among note brokerage houses.

2. The resourcefulness of the note broker is as important as his resources. Explain.

3. What are the principal kinds and relative proportions of paper passing through the hands of our note brokers?

4. What are the usual denominations of broker's paper? Why?

5. Explain fully what is meant by buying paper on seven or ten days' option.

6. What is the broker's commission? Why may he make more or less than his commission?

7. What is the significance of the fact that the broker's commission is without respect to the time the note has to run?

8. Analyze the advantages of broker's paper to borrowers.

9. What are the disadvantages of broker's paper to the borrower?

10. Analyze the advantages of broker's paper to buying banks.

11. How high a premium does the banker have to pay for broker's paper as compared with "straight" paper?

12. Explain carefully the control exercised by the note brokerage houses over our banks.

13. Why is the note broker at any given time under an inducement to depress money rates? How has he attained this end?

14. The note brokerage system has tended to equalize discount rates territorially. Can as much be said of the system in relation to periods of time?

15. Under what conditions during a period of tight money would the proceeds of bank loans made directly to borrowers returning from the brokers' fold "go straight into the reserve" of banks in other communities?

16. If money rates were high in the St. Louis district and low in the Cleveland district, would the purchase of St. Louis paper by banks in the Cleveland district tend to set up a flow of bank reserves from Cleveland to St. Louis? Explain in detail, assuming that the paper passes through a note brokerage house of Chicago.

17. Why is the note brokerage system favorable to over-expansion?

18. How was it possible for the H. B. Claflin Company to borrow so heavily and so widely?

19. Describe and appraise methods designed to correct the weaknesses inherent in the note brokerage system.

CHAPTER XVII

1. Contrast internal and external bank examination as to purpose or object.

2. Characterize our national bank supervision prior to 1907.

3. What have been the main improvements inaugurated in the system of examination since 1907.

4. Along what lines has improvement been effected in state bank supervision.

5. To what extent is coöperation the rule among our supervising agencies?

6. What was the origin of clearing house bank examination?

7. What are the main features of the system of clearing house bank examination?

8. What merits are peculiar to the clearing house system of bank examination?

9. What has been the effect of clearing house examination upon the loans of small banks?

10. How has clearing house bank examination reduced double or multiple borrowing?

11. What incidental effects on loans and on banks may be traced to clearing house bank examination?

12. What are the weaknesses of the various forms of internal bank examination?

13. Describe the system of examination by accountants for banks in Group 1 of the New Jersey Bankers' Association.

14. Why ought bank examination by directors be welcomed by state banking departments?

APPENDIX B

REPORT OF COMMITTEE ON CREDIT FORMS[1]

MADE TO THE AMERICAN BANKERS' ASSOCIATION AT ATLANTIC CITY, N. J., SEPTEMBER 28, 1917

Your Committee on Credit Forms practically completed its labors when the three specimen forms were submitted to the membership of the Association through the medium of the *Journal Bulletin*. A final report has been withheld until this time, that the committee might have the benefit of any constructive criticism offered, and it is pleased to state that several suggestions have been received which it has adopted and included in the amended and improved forms which are submitted as a part of this report.

The committee desires to make special mention for the suggestion of two items, "a condensed statement of profit and loss account for the past fiscal year" and "a reconcilement of the net worth or surplus" which was recommended by the Executive Committee of the Clearing House Section.

As stated in the preliminary report made to the Executive Council some months ago, your committee has conducted an exhaustive investigation into the different forms now used in the various lines of business and in many different sections of the country, with the conclusion that a universal standardization of forms is practically an impossibility. Certain fundamental principles were embodied in the forms

[1] Journal of the American Bankers' Association, Vol. 10, No. 5, Nov., 1917, pp. 351–356.

we examined and with these ideas as a basis, three different forms have been prepared which your committee believes are sufficient to cover practically all cases.

The first of these forms is for the farmer or individual; the second for the firm or individual engaged in the mercantile or manufacturing business; and the third for the corporation engaged in mercantile and manufacturing lines.

In compiling these forms, it has been the aim of the committee to elicit all the information necessary to obtain an intelligent insight into the financial and other conditions of the individual or business under consideration and at the same time to make its questions as brief and simple as possible.

Your committee has received voluntary suggestions in such large numbers as to show conclusively the work had enlisted the interest of many of your members, and while some of the suggestions offered were impracticable, others have been found to be of extraordinary merit. The one predominating idea, however, coming from banks both large and small, was for brevity and simplicity in the forms to be adopted. This demand has caused the committee to eliminate a number of ideas of its own and to reject suggestions coming from others which contain considerable merit.

Your committee fully realizes that the forms adopted will not meet the need of every bank or banker in this great country where local conditions and requirements vary so greatly. It is the belief, however, that the forms submitted will meet the needs of thousands of your members, and that minor changes to meet individual or local needs will make them desirable to practically every bank in this Association.

If the result of our work is adopted by this Association, it is the suggestion of the committee that samples of the forms be printed and placed on file in the General Secretary's office in New York to be furnished to members who desire them for "copy."

Your committee, believing it has now accomplished the end for which it was formed, asks to be discharged.

Respectfully submitted,
NELSON N. LAMPERT,
WM. A. LAW,
W. P. SHARER, CHAIRMAN.

The action of the Convention was as follows:

President Goebel: Gentlemen, you have heard the most excellent report of this committee. What is your pleasure? Unless there is objection, the report will be received with approval and the committee discharged, as requested, with thanks. The Chair hearing no objection, it is so ordered.

Note: All members are privileged to use these forms by having them printed by their local printer, but with the understanding that a notice be printed thereon stating that they are the forms of the Association.

The forms referred to in the report of the committee follow on succeeding pages.

FORMS DESIGNED AND APPROVED BY THE AMERICAN BANKERS' ASSOCIATION

Form No. 1

Farmer

Statement of.....
Address.....
To.....Bank of.....

I make the following statement of all my assets and liabilities as at the close of business on.....and give other material information for the purpose of obtaining advances on notes and bills bearing my signature or indorsement and for obtaining credit generally upon present and future applications. If any change materially reduces my means I will immediately notify the bank.

(Please answer all questions and fill in all blanks)

Assets		*Liabilities*	
Cash on hand and in bank. . . .	. . . . .	Accounts and notes owed by me without security	. . . . .
Loans and accounts due to me (good)	. . . . .	Notes or mortgages owed by me with real estate as security. . .	. . . . .
Farm products.	. . . . .	Notes owed by me with chattel mortgage as security.	. . . . .
Live stock.	. . . . .	Other indebtedness (itemized) . .	. . . . .
Farm land and buildings (see schedule).	. . . . .	. . . . .	. . . . .
Farm implements and machinery.	. . . . .	Total Liabilities.	. . . . .
Other property (itemized). . . .	. . . . .	Net Worth	. . . . .
. . . . .	. . . . .	Total	. . . . .
Total	. . . . .		

Location of Land Owned	*Acres*	*Estimated Value*	*Assessed at*	*Mortgaged for*
. . . . .	. . . . .	. . . . .	. . . .	. . . . .
. . . . .	. . . . .	. . . . .	. . . .	. . . . .
. . . . .	. . . .	. . . . .	. . . .	. . . . .
. . . . .	. . . .	. . . . .	. . . .	. . . . .

Title. The title to all above described real estate is in my name solely, except as follows: . . . . . .

. . . . . .

Buildings. State general character. . . . . .

Implements. State general character of those listed as assets. . . . . .

Insurance. Fire $ . . Life $. . . . . .
Who is beneficiary?. . . . . .

Contingent Liability as indorser or guarantor . . . . $ . .

Accounts and Notes Payable. (If any are past due state amounts and reasons) . . . . . .

Other Liens. (If any other liens on assets, state amount and circumstances) . . . . . .

I hereby certify that the figures and statements contained on both sides of this sheet are true and give a correct showing of my financial condition.

Signed this. . . . . day of. . . . . 19. . Name. . . . . .

Reverse Side of Form No. 1

State character of loans and accounts listed as assets. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .

If any leased land used, state acreage, nature, use and terms of rental. . . . . .

.....

.....

.....

(The balance of this space may be used for printing any questions desired to be asked amplifying statement of condition as shown on opposite page.)

Form No. 2

Firm or Individual

Manufacturer or Merchant

Name..... Business .....

Address.....

To the.....Bank.....

For the purpose of procuring and maintaining credit from time to time in any form whatsoever with the.....Bank, for claims and demands against the undersigned, the undersigned submits the following as being a true and accurate statement of .....financial condition on the.....day of....., 19.. and agree that if any change occurs that materially reduces the means or ability of the undersigned to pay all claims or demands against.....the undersigned will immediately and without delay notify the Bank; and unless the Bank is so notified, it may continue to rely upon the statement herein as a true and accurate statement of the financial condition of the undersigned.

Assets		*Liabilities*	
Cash on hand and in bank.....	.....	Due on open accounts.....	.....
Accounts of customers (good)....	.....	Acceptances:	
Notes and acceptances of customers (good).....	.....	(1) Issued in payment for merchandise.....	.....
Merchandise (at cost):		(2) Other acceptances.....	.....
(1) Manufactured.....	.....	Notes payable for merchandise...	.....
(2) Raw material.....	.....	Notes payable to own banks.....	.....
(3) Stock in process...	.....	Notes sold through brokers.....	.....
Due from partners notes, accounts receivable, etc.....	.....	Notes payable to others.....	.....
Plant and machinery.....	.....	Money on deposit with us.....	.....
Furniture and fixtures.....	.....	Other current debts (itemized)....	.....
Real estate (value-mortgage entered in liabilities).....	.....	.....	.....
Other assets (itemized).....	.....	Debt secured by mortgage—when due.....	.....
.....	.....	Net worth.....	.....
.....	.....	Reserves.....	.....
.....	.....	Notes receivable and acceptances, discounted or sold with endorsement or guarantee (contingent liability).....	.....
.....	.....		
Total.....	.....	Total.....	.....

Between the date of the above inventory and the present time we have had no serious losses through bad debts or otherwise (except) .....and our condition to-day is fully as good as set forth by the above figures.

Condensed Profit and Loss Statement for Fiscal Year Ending .....19...

Expense		*Income*	
Cost of material or merchandise consumed		Net sales	
Actual expense of conducting business. Including rent, taxes, insurance, etc.		From investments	
		From discounts on purchases	
		From other sources—itemize	
Salary drawn by myself			
Interest on borrowed money			
Bad debts charged off.			
Depreciation charged off			
Net profits			
Total		Total	

Reconcilement of Net Worth

Net worth at close of previous fiscal year	$	
Less charges not applicable to current year	$	$
Add net profits as above	$	$
Less—withdrawals, other than salary as above		$
Net worth		$

Reverse Side of Form No. 2

Contingent Liability: We have no contingent liability of any kind as endorser or guarantor not noted above (except as follows)..... Our merchandise is insured for $..... Plant, building and machinery $..... Life insurance carried for $..... Beneficiary..... None of the accounts or notes receivable included in the within statement have been assigned, pledged or discounted (except as follows).....

.....

Neither have any of our other assets been pledged or assigned as collateral for any of our liabilities (except as follows).....

.....

.....

Our partnership terminates.....

We have no interest in any other concern (except—name affiliations and location).....
There are no suits pending against our firm (except).....
The form of obligation used in the financing of our business is the plain note of the firm (endorsed by).....
None of the endorsers guarantee or endorse the paper of other concerns or individuals (except).....
Outside resources of endorsers are.....

Our { commercial paper is / acceptances are } placed through (name broker or brokers).....

Our books { are not / are } audited by a certified public accountant....

.....
The date of last audit was.....made by.....

Bank Accounts	*Lines Granted*	*Under Discount on Statement Date*
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

General Partners:
..... Personal worth outside of this business $.....
..... " " " " " " " $.....
..... " " " " " " " $.....
(Please sign firm's name here).....
By.....
(Partner)
Date signed.....

Form No. 3

Corporation
Manufacturer or
Merchant

Name..... Business.....
Address.....
To the..... Bank.....

For the purpose of procuring and maintaining credit from time to time in any form whatsoever with the.....Bank, for

claims and demands against the undersigned, the undersigned submits the following as being a true and accurate statement of its financial condition on the.....day of....., 19.., and agree that if any change occurs that materially reduces the means or ability of the undersigned to pay all claims or demands against it, the undersigned will immediately and without delay notify the said Bank; and unless the Bank is so notified it may continue to rely upon the statement herein given as a true and accurate statement of the financial condition of the undersigned.

Assets		*Liabilities*	
Cash on hand and in bank.		Due on open accounts	
Accounts of customers (good)		Acceptances:	
Notes and acceptances of customers (good).		(1) Issued in payment for merchandise	
Merchandise (at cost):		(2) Other acceptances	
(1) Manufactured		Notes payable for merchandise	
(2) Raw material		Notes payable to own banks.	
(3) Stock in process		Notes sold through brokers	
		Notes payable to others	
Notes and accounts due to us by controlled or allied concerns		Money on deposit with us	
Plant and machinery		Notes and accounts due by us to controlled or allied concerns	
Furniture and fixtures		Other current debts (itemized)	
Real estate (value-mortgage entered in liabilities)		Bonded debt—when due	
Other assets (itemized)		Capital:	
		Preferred	
		Common	
		Surplus	
		Reserves	
		Notes receivable and acceptances discounted or sold with endorsement or guarantee (contingent liability)	
Total		Total	

Condensed Profit and Loss Statement for Fiscal Year Ending.....19

Expense		*Income*	
Cost of material or merchandise consumed		Net sales	
Actual expense of conducting business. Including rent, taxes, insurance, etc.		From investments	
Salaries paid to officers.		From discounts on purchases	
Interest on borrowed money and bonds		From other sources (itemize)	
Bad debts charged off			
Depreciation charged off			
Net profits			
Total		Total	

Reconcilement of Surplus

Undivided surplus at close of previous fiscal year	$.....		
Less charges not applicable to current year	$.....	$.....	
Add net profits as above		$.....	$.....
Less dividends { preferred ... per cent.		$	
{ common .....per cent.		$	
			$.....
Undivided surplus			$.....

Reverse Side of Form No. 3

Contingent Liability: We have no contingent liability of any kind as endorser or guarantor not noted above (except as follows).....

.....

Our merchandise is insured for $..... Plant, building and machinery $..... Life insurance for benefit of Company amounts to $..... None of the accounts or notes receivable in the within statement have been assigned, pledged or discounted (except as follows).....

.....

Neither have any of our other assets been pledged or assigned as collateral for any of our liabilities (except as follows) .....

.....

Our company is incorporated under the laws of the State of.....

.....

We have no interest in any other concern (except—name affiliations and location) .....

There are no suits pending against us (except).....

The form of obligation used in the financing of our business is our plain note (endorsed by).....

None of the endorsers guarantee or endorse the paper of other concerns or individuals (except).....

.....

Outside resources of endorsers are.....

Our { commercial paper is / acceptances are } placed through (name broker or brokers).....

Our books { are not / are } audited by a certified public accountant....

The date of last audit was.....made by.....

Bank Accounts	*Lines Granted*	*Under Discount on Statement Date*
.....	.....	.....
.....	.....	.....

Principal Creditors	*References*
.....	.....
.....	.....
.....	.....

Officers

.....President
.....Vice-President
.....Treasurer
.....Secretary
(Please sign here).....

Directors

.....
.....
.....
.....

By .....
Date signed.....,19..

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