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Volume Author/Editor: Edgar R. Fiedler

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Chapter Author: Edgar R. Fiedler

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CHAPTER 2 THE MEANING AND IMPORTANCE OF CREDIT RISK

A discussion, at the outset, of the conceptual aspects of credit risk and credit quality is necessary for a general orientation and will provide a basis for the selection of the relevant time series, and will serve as useful background information for their interpretation. In this chapter, we review the more important considerations that the researcher or analyst should have in mind when reaching a judgment about the risk status of the nation's credit structure.

Quality, Risk and Collection Difficulties

Most analysts, when they consider the rewards and hazards of credit, tend to speak and write about them in terms of the *quality of credit*. Unfortunately, the term "credit quality" is often a confusing one; It tends to mean different things to different people. The different meanings, however, have a common element, a common denominator — they all relate to the risk of credit difficulties.¹ Whatever "quality" may mean to any of us, our ultimate concern in this volume is with the problem of *credit risk* and credit collection difficulties and the impact that they may have on the economic and financial health of the nation. Thus, it is to credit risk — the probability that a loan will not be repaid according to the terms of the contract — rather than the less well defined idea of "credit quality," to which we turn our attention.

Retrospective vs. Prospective Credit Risk

We have been talking, thus far, about credit risk and credit collection difficulties as though they represented essentially the same thing. In a sense that is true, but there is an important distinction between them — the distinction between the past and the future. Credit collection difficulties refer to defaults, failures, etc., that have been experienced; that is, to actual collection difficulties recorded after the fact. The term "credit risk," on the other hand, is a forward-looking concept, focusing on the probable incidence of credit difficulties in the future.

The importance of distinguishing between retrospective and prospective credit risk is most obvious when we start to measure credit risk. Retrospective measures of collection difficulties, such as delinquencies and losses, are perhaps the most clear and straightforward indicators we have in this area, especially for historical research. For economic and financial policy- or decision-making purposes, however, measuring risk by actual credit experience is not sufficient. What is needed for these purposes are measures that indicate not only how prevalent collection difficulties have been in the past, even the immediate past, but also how prevalent they are likely to be in the future. We want to know what may be expected in the way of failures, losses, etc., in the coming months.

Measuring Prospective Risk

How, then, can credit risk be measured prospectively? How can we get an indication of the probability of credit difficulties in the period ahead? One method is to determine what characteristics of credit relate to collection difficulties, and then measure the status of those characteristics in the credit structure and the changes in them over time.² If, for example, the loan-to-value ratio on home mortgages is found to be correlated with subsequent foreclosure experience, then a time series of the average loan-to-value ratio on all existing home mortgages should tell us something about the probable incidence of home mortgage foreclosures in the period ahead. If debt-payment-to-income ratios of consumer instalment borrowers have been established as being related to credit risk, then a change in the average payment-to-income ratio should tell us that the risk of instalment credit difficulties has changed in the corresponding direction; similarly for other risk-related loan and borrower characteristics (maturities, financial ratios of business firms, etc.).

The relationship between these characteristics and the risk of collection difficulties is very complex. First, while many tests have been made to evaluate this relationship (the subject of Chapter

5) some of the evidence is partly contradictory, some of the tests are not as conclusive as we would wish, and in more than a few cases the relationship still remains to be tested. Second, in very few tests have several risk-related characteristics been evaluated simultaneously; thus our knowledge of the relative importance of the different characteristics and their interaction is highly limited.

When we are evaluating the probable incidence of collection difficulties, we need information on the risk-related characteristics embodied in all credit outstanding — information that is rarely available from direct measurement. Part of the problem is that the composition of the stock of credit outstanding is constantly changing. New credit is being granted and old credit is being paid off. The risk-related characteristics in both the inflow and the outflow are not typically the same as in the continuing outstanding stock. These flows, consequently, bring about significant changes in the composition of the characteristics in the stock of credit outstanding. The changes, in turn, continually affect the risk of collection difficulties.

The Influence of Business Conditions

The nation's economic health, however, is an even more important factor that is constantly bringing about changes in the composition of risk-related characteristics in the stock of credit outstanding. Some risk-related loan and borrower characteristics (e.g., maturities) will not be affected by cyclical changes in incomes, unemployment, prices, etc., but many of the important credit characteristics are directly influenced, and to a significant degree, by what happens to business conditions. When personal incomes and unemployment change, so do repayments-to-income and liquid-asset ratios on existing consumer instalment credit. Variations in the resale value of homes or cars or farms will alter loan-to-value ratios on outstanding loans. A climb or fall in profitability will make a big difference in the liquidity and working-capital ratios of business borrowers. And these changes in the composition of risk-related characteristics in the continuing stock of credit outstanding will have an important impact on the incidence of collection difficulties.

The economic environment will influence credit risk in other ways, too. The view borrowers

have of their economic prospects will influence the amount they desire to borrow and invest. Similarly, as the economy changes, so will lenders vary their lending standards and, also, their policies on how quickly and uncompromisingly they start foreclosure proceedings after the first signs of repayment difficulties. But no doubt the most significant effect that business conditions exert on the risk of credit collection difficulties comes about through the process described above, i.e., through the changes to the risk-related characteristics in the outstanding stock of credit.

To sum up, the method used to measure prospective credit risk is to identify the loan and borrower characteristics that are related to risk, then to measure the composition of those risk-related characteristics, and changes in those characteristics, in the stock of credit outstanding. Changes in the characteristics through time can be evaluated in terms of the three components of the changing stock of credit: the flow of new credit extended, the flow of credit paid off and the continuing stock of credit outstanding. The over-all credit risk depends on the amount of credit in each component and the credit risk (i.e., the characteristics) of each group. The credit risk of newly extended credit varies widely through time, but usually it is higher than average. (Among other reasons, it is generally at the very beginning of a loan's existence that the borrower's equity is at a minimum, i.e., the loan-to-value ratio is highest.) Correspondingly, the credit risk of loans being paid off is lower than average. Counteracting those factors, both of which tend to increase over-all credit risk, is the normal decline in the credit risk of the continuing stock of credit outstanding as the borrower's equity increases over time. (This is most obvious in the case of instalment loans, but it appears to be generally valid for single payment loans as well.) The credit risk of the continuing stock of credit is very sensitive to business conditions, because changes in incomes, unemployment, prices, etc., bring about significant changes in such risk-related characteristics as repayments-to-income ratios, loan-to-value ratios and liquidity ratios.

Symmetry of the Impact of Credit Difficulties

In the discussion above we considered the influ-

ence of economic conditions on the incidence of credit difficulties. Now, we will reverse that focus, turning our attention to the equally important question of the impact of credit difficulties on the economy. How may credit difficulties influence the economic and financial health of the nation?

One of the least understood points about credit collection difficulties is that their impact is in more than one direction. Unfortunately, economists nearly always talk about credit quality and credit risk only in terms of the costs and consequences of its weakness or deterioration. Almost invariably, the problem is viewed as arising from the extension of credit on excessively generous terms and in a volume beyond the productive use of the borrower, with these actions leading to serious collection difficulties followed, perhaps, by widespread losses, a spiraling deflation and general economic depression.

It is less often recognized that there is also danger in the alternative: when credit is extended on excessively conservative terms and in a quantity less than that which borrowers can use safely and productively. The result of such a low level of credit risk could very well be a level of production, employment and income significantly below what otherwise would be achieved. In short, credit risk is a bilateral problem. Credit can be too safe as well as too risky, and the consequences of the one condition can be as serious as the consequences of the other.³

There is some evidence, for example, that in the middle 1930's, following the trough of the Great Depression, credit risk was unnecessarily low. Moore, Atkinson and Kilberg derived one indication of this from Hickman's data on corporate bonds. They addressed themselves to the differences in risks and credit costs of small versus large borrowers, and examining the record developed by Hickman of the promised yields, loss rates and realized yields on bonds classified by asset size of obligor during four-year intervals from 1900 to 1943, they commented:

In short, the aggregate results, from the point of view of an investor, during these 4-year periods were often more satisfactory but, occasionally, less satisfactory in the case of bonds of small than of large corporations. It is interesting to observe

that the differentials in promised yields against the smaller corporations became especially large in 1908-11 and in every period since 1932, after the heavy losses on the issues of small firms in the immediately preceding periods (1904-07 and 1928-31). As it turned out, these differentials were by no means required to offset differential losses in the subsequent periods (except in 1932-35). Hence, realized yields on outstanding issues of small obligors substantially exceeded those on the issues of large obligors.⁴

This strongly suggests that the risk on credit made available to small businesses in these two periods was excessively low. The great shocks and losses of the crisis and depression of 1907-08 and especially of the Great Depression of 1929-33 were fresh in the memory of both borrowers and lenders. Lenders were, therefore, reluctant to grant credit to a sector of the market that had just suffered especially heavy losses, and when bonds were floated or loans made to smaller borrowers they carried a substantial interest premium. That these terms were too conservative, and thus that the credit risk on loans made to small businesses was too low, is suggested — though not proved — by the very high realized yields in the subsequent periods. It is reasonable to suppose that this may have deepened the depression and held back the recovery in business activity.

A second example from the 1930's is seen in John Lintner's account of the mortgage lending policies of mutual savings banks during 1931-45.⁵ The large losses that the savings banks were taking on outstanding mortgage loans during the depression seemed to indicate that this form of investment involved great risk. As a result, the savings banks failed to take advantage of the many opportunities that existed to make loans of acceptable risk during that period, loans that actually were being made by other lenders.⁶

The significance of these examples is that an increase in credit risk is not invariably adverse and undesirable. By the same argument, a decline in credit risk is not necessarily salutary. Historically, there appears to have been a tendency in America to believe that credit risk should be held as low as

possible, and the lower the better. This idea is built, no doubt, on the historical prejudice against the use of debt. It is reinforced by the highly visible nature (within an organization, at least) of credit losses, which provide an easy target for criticism, and often by their importance to the profitability, or even the solvency and continued existence, of the lending institution. Such factors put a premium on avoiding losses.

The costs of a very low level of credit risk — reduced output and employment, and foregone profits within the firm — are not so striking as the losses, and usually are diffused throughout the economy rather than bearing directly on the lender. Thus, the prevailing attitude has more often been one of caution about possible credit losses than concern for the performance of the economy as a whole.

It becomes obvious that the optimum degree of credit risk is not one of near-perfect safety and no risk; for that would mean no lending at all. We have here the age-old economic problem of balancing risks and returns, of balancing the net costs and benefits involved in too little credit risk against the net costs and benefits of too much.

Private vs. Social Impact of Credit Difficulties

These risks and costs that we have been discussing have two different impacts. The first is what may be called the private or internal cost of the credit difficulty. This is the cost that the lender must absorb when the borrower does not fulfill the credit contract plus the cost to the borrower. To the lender, this cost may in extreme cases represent the entire amount of the loan plus the expense of the unsuccessful attempt to collect it. Alternatively, it may be no more than the expense of keeping track of and bringing up to date a temporary delinquency.

Lenders can protect themselves against these private costs through the interest rates they charge and the reserves they maintain (though of course they may not always do so). In the case of some trade credit, the seller can insure his accounts receivable against bad debt losses. Lenders who give credit on more generous terms to riskier borrowers, and who thus experience greater losses, typically charge higher interest rates. Moreover, as

credit risk changes through time lenders can, in some cases at least, maintain their coverage of the private risk by changing the interest rates that they charge.

The second cost is the social or external cost. In its simplest form, this cost is the loss to the economy of the business activity formerly carried on by the defaulting firm, including the secondary effects (on other lines of business) of the reduced economic activity. Resources — workers and capital facilities — that formerly were employed are now idle, and they may not be absorbed immediately into other activities.

The social cost of excessive credit risk takes other forms as well. Perhaps the firm that failed was, at an earlier point in time, a marginal but operating business; then an unwise loan to the firm provided it with the means to expand, although it did not have the capability to do so efficiently. During the attempt to expand, it outbid other firms, most of which were efficient, for economic resources. This diversion of resources from efficient to inefficient operations is a second form of the external cost. The attempted expansion also might have helped generate inflationary pressures, which would be a third form of the external cost.

The failure of the firm, when it comes, is not a cost in and of itself; the failure is, rather, the undoing of earlier mistakes — the unwise extension of credit and the misallocation of resources. But failure brings with it the important costs of idled resources and secondary effects on other lines of business.

Still another social cost of excessive credit risk occurs when a series of defaults or failures in a particular area or industry brings about a decline in the willingness of lenders and borrowers to invest there. Even delinquencies, the least costly sort of credit difficulty, if they begin to appear in substantial numbers, might easily dampen the readiness of borrowers to take on new or additional investment commitments and the willingness of lenders to make them.⁷ Beyond this, in a severe situation lenders may be pressed for liquidity and be forced to call in other loans, some of which then become uncollectable even though their terms would have been met under normal circumstances.

The importance of this distinction between the

private and social risks and costs is to be seen in the fact that, although the private costs are normally offset by the interest rate, the social costs are not. Outside of general stabilization policies, there is no protection against the external costs that affect the economy at large.

Lenders may also be protected from the private costs of credit difficulties through government guarantees or insurance. VA-guaranteed and FHA-insured home mortgages are the most prominent illustrations. Here again protection against the social costs is absent. Several years ago in Florida, for example, a large volume of FHA-backed mortgage money provided builders with the means to finance a large expansion in the construction of new residences. The demand for housing in the area, however, did not expand with the supply, and the result was a sharp rise in foreclosures. The lending institutions were not hurt in any serious way — their private costs, except for minor foreclosure expenses, were covered by the FHA insurance; they simply turned the foreclosed real estate over to the government. The economy of the area, however, suffered badly. The oversupply of houses existed for several years and brought about a local depression in the construction industry, until the excess inventory of housing units was absorbed. Further, the owners of other property in the area who sold their homes during this period had to do so in a depressed market. The social costs of the situation were severe, even though the private costs were minimal.⁸

Role of Credit Risk in Economic Fluctuations

Economic fluctuations, as mentioned earlier, have a pronounced influence on credit performance. At the same time, changes in credit risk and credit performance exert an influence on cyclical fluctuations in business, a subject that requires at least brief mention.

Business cycles are complex phenomena. Although our concern is with the effects of changes in credit risk and credit difficulties on business conditions (and vice versa), it should be understood throughout that this is only one among the many forces that help to shape the business cycle. No undue emphasis on the role of credit risk is intended. Furthermore, the purpose of this dis-

cussion is merely to show some of the major channels through which credit performance may influence economic fluctuations, in order to indicate why we believe the data gathered together in this volume are important.

Changes in credit risk and credit difficulties can play a part in economic fluctuations by (1) helping to initiate a change in the direction of business, or (2) adding to the severity of a cyclical movement once under way. The evidence and opinion are less clear on the first point than on the second. Writing on the role of credit quality in the Great Depression, Geoffrey Moore stated:

In the past few years important new historical evidence has been developed on the cumulating deterioration in the quality of credit during the period of prosperity that precedes severe depression. This deterioration took place in the twenties and was largely unrecognized at the time — but this only added to its depressing force when the test came. This is not to say that the deterioration in credit was the sole or even the main cause of the Great Depression. All that the evidence shows conclusively, in my opinion, is that it helped to make the depression much deeper and longer than it might otherwise have been.⁹

Helping Cause the Turns

One way in which changes in credit risk might help bring about a cyclical turn in business is suggested in the Moore-Klein study of consumer credit quality.¹⁰ They show, first, that cyclical swings in consumer credit delinquencies and losses conform inversely to business activity, falling during prosperity and rising in contractions. This inverse conformity between repayment difficulties and the business cycle indicates that the influence of swings in business activity on the risk-related loan and borrower characteristics of the continuing stock of consumer credit outstanding, and thereby on credit difficulties, tends to dominate the time pattern of consumer credit experience.

The movements in credit difficulties, however, *lead* the turning points in general business conditions; the cyclical turns in delinquencies occur some months in advance of cyclical turns in busi-

ness.¹¹ As Moore and Klein point out, these leads are consistent with the hypothesis that cyclical changes in the credit risk on new instalment loans also have an influence on collection difficulties, but one operating in the opposite direction to that of income and employment.

The situation is one of opposing and offsetting forces. The first component is the continuing stock of consumer credit outstanding, the credit risk of which is reduced significantly over the course of the business expansion as incomes rise, unemployment falls, prices rise, etc. The second component is the flow of credit paid off, with lower-than-average credit risk, which probably doesn't change much over the business cycle. The third component is the flow of new credit. The credit risk on new credit is usually higher than average, and during a business expansion the availability of credit on easier terms and to less creditworthy borrowers tends to raise that risk substantially. The net balance of these three forces, as indicated by the record of consumer instalment delinquencies, shows that the cyclical changes in the credit risk of the continuing stock of credit dominate the over-all credit risk most of the time, but that during the last stages of business expansion apparently the high and rising risk on newly extended credit becomes the dominant force. This pattern becomes especially likely if the improvement in incomes is slower and the easing of credit standards becomes more pronounced in the late stages of the business upswing.

Thus, delinquencies on consumer instalment credit typically begin to increase before a business contraction gets underway. Additionally, liabilities of business failures (and failures of large businesses) have a long history of leading downturns in the economy.¹² Perhaps these turns for the worse in credit performance contribute in some degree, through a tightening of lenders' credit policies, to the onset of a business decline. It should be emphasized that this hypothesis is highly tentative and not tested, but it does illustrate a possible route by which changes in credit risk may help set in motion a change in economic conditions.

There is also a possibility that a large and highly publicized business or bank failure might serve to initiate a downturn in business. An economy narrowly balanced between expansion and

contraction quite possibly could be put onto the downward track by the psychological impact of a spectacular bankruptcy. Mitchell states, for example, that "It was a series of bank failures in New York that turned the crisis of 1907 into a panic."¹³

Aggravating the Cycle

As mentioned, more credence is generally given to the hypothesis that shifts in credit risk and credit difficulties play a role in accentuating and aggravating business cycle expansions and contractions. Credit is a mechanism that makes it possible for economic units to spend out of phase with their income. It enables producers and consumers to bunch or postpone their major purchases of capital goods. Cyclical changes in lending standards (and thus in credit risk), to the extent that they are in accord with changes in the quantity of credit, not only allow but encourage such bunching to an even greater degree than if lending standards remained constant. In business expansions this can intensify the demand for major durable goods, and in economic contractions, dampen such demands. It is in this manner that cyclical swings in lending standards can exaggerate cyclical swings in business activity.

Another way to consider the same point is in terms of the timing of the saving that takes place with a credit purchase of a capital good, particularly where repayments are scheduled in regular instalments. A cash sale means that the buyer's financial saving for the capital equipment takes place before purchase; a credit sale means that the saving takes place subsequently, i.e., as the loan is paid off.¹⁴ When shifts in lending standards tend further to concentrate credit sales in a period of business expansion, spending is increased more than saving, thus adding fuel to the business upswing. Conversely, in the business contraction when purchases are postponed, saving takes place in the form of repayments on the debt contracted earlier and spending is reduced further. The key point is the flexibility in the timing of the purchases, which thus are bunched in prosperous periods, coupled with the inflexibility of the repayments, which can be a drain on current incomes during a period when more spending, and not more saving, may be needed. In this way,

changes in lending standards can make a destabilizing contribution to the momentum of both phases of the business cycle.

The Federal Reserve, discussing consumer credit and economic stability, reported evidence that instalment credit sales fluctuate over a wider range than cash sales. Furthermore, this fact may be explained in part by changes in credit terms and, probably, in the standards applied to borrower creditworthiness, too. "Excluding occasions when terms were shortened by regulation, the record suggests that the easing of terms was a substantially stimulative force on several occasions and that tightening was a mildly depressing force on at least one occasion."¹⁵

Another and possibly more important way that changes in credit risk can be cycle-aggravating is through the effect of repayment difficulties on investor confidence, the influence of delinquencies, foreclosures, failures and losses on the optimism and pessimism of business and financial decision-makers. Reference was made to this point earlier in the chapter, in the discussion of the social costs of credit difficulties.

When business is expanding, confidence grows apace among investors and lenders; both take risks they would have rejected earlier. Speculators find they can finance their ventures on the proverbial shoestring. All of this involves looser credit terms and a friendlier welcome to borrowers with characteristics that involve a high degree of credit risk.

Correspondingly, when the economy is in a declining phase, it is not only the dim prospects for sales and profits that keep businessmen from making new investment commitments, but also the fear of losses and the possibility of failure. Lenders are of course affected in the same way; they develop, in the phrase Robert Gordon used, a "once burned, twice shy" attitude.¹⁶

The chain reaction that credit difficulties may set in motion can stem not only from their impact on investor and lender confidence, but also through the institutional arrangements by which financial organizations are regulated. Bank regulatory agencies, for example, have various formulae to estimate the liquidity requirements and the capital adequacy of banks. Among the criteria is the risk status of the bank's loans. All loans about which there is no question require capital backing

of, say, 12 per cent. If the bank examiners classify a loan as "substandard," however, the amount of required capital behind it might rise to 20 per cent; if "doubtful," 50 per cent; and if it is a "loss loan," 100 per cent. Thus, if serious loan weaknesses show up in a bank's examination, the amount of capital required will increase substantially. If the bank has a strong capital position and its bad-debt reserves are sufficient, the situation can be taken in stride. But if the capital position is thin and the bad-debt reserves inadequate, the emergence of a significant amount of classified loans would likely cause the bank to severely restrict its lending. And should this occur in a number of banks at the same time that business conditions were weakening, the tighter lending policies would work to exacerbate the cyclical contraction. And, of course, the reverse process would add extra fuel to a business upswing.¹⁷

Related Topics

Our discussion in this section has been carried forth in terms of the impact of credit difficulties on cyclical fluctuations in business activity. Two further aspects of this topic, which we do not take up here, surely deserve attention. They are the role of credit risk and credit difficulties in the business cycle as opposed to long swings in economic growth ("Kuznets cycles"), and their relative influence on mild or moderate business cycles as opposed to severe cycles. On the latter point, Burns and Mitchell tentatively suggested an intriguing hypothesis:

After a severe depression industrial activity rebounds sharply, but speculation does not. The following contraction in business is mild, which leads people to be less cautious. Consequently, in the next two or three cycles, while the cyclical advances become progressively smaller in industrial activity, they become progressively larger in speculative activity. Finally, the speculative boom collapses and a drastic liquidation follows, which ends this cycle of cycles and brings us back to the starting point.¹⁸

Credit Risk and Credit Quantity

Because the quantity of money and credit is

often given considerable emphasis in the cyclical processes of the economy, it is worthwhile to consider the interrelationship between credit quantity and credit risk. The two typically move in conformity. It is, in fact, difficult to conceive of a cyclical expansion or contraction in the volume of credit (measured relative to the size of the economy) without a corresponding movement in at least some of the factors used to measure risk. Changes in credit terms or in the quality composition of borrowers are often the means by which a change in the quantity of credit is brought about. Higher loan-to-value ratios, longer maturities, a larger proportion of families or business firms using credit – all normally involve an increased volume of credit outstanding relative to the size of the economy. Indeed, ratios of the volume of debt to income and debt to assets are used regularly as indicators of credit risk.¹⁹

In one sense, then, many of our measures of risk pertain directly to the relation between the volume of debt and the capacity to repay it. It is thus possible to think of the effect that credit risk has on cyclical fluctuations in the economy as an integral part of the mechanism by which changes in the quantity of credit influence the business cycle.

Yet measures of credit risk have a distinct function, too. For whether or not the volume of credit changes, the risk position of the credit structure can vary, and these independent movements in the risk position of the nation's credit instruments can have important consequences of their own. Thus, even if the total volume of credit outstanding were to remain unchanged, its risk could change, and with a significant impact on the performance of the economy.

¹There are many different forms of credit difficulties: delinquencies, failures, losses, etc. Throughout most of this book, we use "credit difficulties" as a generic term encompassing all forms. The first part of Chapter 3, however, discusses the differences among the several types of credit difficulties.

²Other methods of measuring prospective credit risk include credit ratings and market yield differentials. These are discussed in later chapters; they are not included in this discussion because they are based importantly on the risk-related characteristics.

³Milton Friedman and Anna Jacobson Schwartz, in *A Monetary History of the United States, 1875-1960* (Princeton for NBER, 1963), addressed themselves to this point as follows:

It is a widespread economic fallacy to believe that higher average quality is necessarily better both for society and for the individual lender than lower average quality is. This is no more true of credit than of other services or of commodities. The opposite view that what we always need is more venturesomeness or more risk capital is not true either, though there are many who simultaneously hold both views without recognizing that they are mutually contradictory. Quality must be balanced against quantity or, what is equivalent, against cost. For credit, uniformly high quality can be obtained only by limiting the capital market to an extremely small role in the economy, which would probably greatly reduce the economy's productivity and efficiency.

⁴Moore, Atkinson and Kilberg, *Report to the Committees on Banking and Currency . . .*, p.79.

⁵John Lintner, *Mutual Savings Banks in the Savings and Mortgage Markets*, Cambridge, Mass., 1948, pp. 222-238, especially pp. 236-238.

⁶This is not intended as an indictment of the lenders of these periods for excessive conservatism in their lending policies. It is hindsight that leads us to ask whether the credit risk of those periods was not lower than later proved to be necessary. Our purpose is to illustrate the possibility that credit risk may be held too low.

⁷The impact of credit difficulties on the economy can come at an even earlier stage. The borrower, although he is able to repay his debt on schedule, may be forced to conduct his personal affairs or operate his business differently than if he were unencumbered by the debt. He might, for example, have to cut back on other activities, or liquidate an investment or part of his business. If these actions occur with significant frequency, they will affect the economy in a meaningful way. Thus, excessive credit risk can influence business conditions even when the loans in question are paid off on schedule. See Albert M. Wojnilower, "Changes in the Quality of Business Loans of Commercial Banks," unpublished Ph.D. dissertation, Columbia University, December 1960, pp. 13-15.

⁸See "Foreclosed Homes Held by FHA in Florida Jam Real Estate Market, Threaten Prices," *The Wall Street Journal*, January 27, 1964. It should also be noted that transferring the foreclosed property to the government is not the end of the credit-risk story. Unexpectedly poor experience with insured or guaranteed credit may have other repercussions – i.e., beyond the impact on the market for the property mentioned above. For example, a rash of claims from lenders might put pressure on the government to cut back its loan programs, tighten its standards for insurance, etc., and these moves would be likely, in the circumstances, to hinder rather than help the

economy through a difficult period.

⁹"The Quality of Credit in Booms and Depressions," p. 288. For another, and different view, see Friedman and Schwartz, pp. 246-248.

¹⁰The Quality of Consumer Instalment Credit, pp. 112-116.

¹¹Note that consumer credit delinquencies (inverted) are included as a leading series in the NBER list of business cycle indicators. See Geoffrey H. Moore and Julius Shiskin, *Indicators of Business Expansions and Contractions*, Occasional Paper 103, New York, NBER, 1967, pp. 35 and 38; and U.S. Department of Commerce, Bureau of the Census, *Business Conditions Digest* (monthly), series number 39.

¹²See Geoffrey H. Moore, ed., *Business Cycle Indicators*, Vol. 1, Princeton for NBER, 1961, Chapters 3 (especially p. 67) and 12.

¹³Wesley C. Mitchell, *Business Cycles and Their Causes*, Berkeley, Calif., 1941 (paperbound edition, 1960), p. 75.

¹⁴When a purchase is paid for in cash but the funds to do so are obtained by borrowing against other assets – not an uncommon practice – the transaction is really a credit sale, as the terms are used here.

¹⁵Board of Governors of the Federal Reserve System, *Consumer Instalment Credit*, Part I, Volume 1, Washington, D. C., 1957, p. 223.

¹⁶Robert A. Gordon, *Business Fluctuations*, New York, 1952, p. 299; see also p. 282. For related discussions, see Gottfried von Haberler, *Prosperity and Depression*, Cambridge, Mass., 1958, pp. 327-328; and Mitchell, pp. 63-128.

¹⁷For a discussion of the impact of bank examiners on lending policies in the 1930's, see Charles O. Hardy and Jacob Viner, "Report on the Availability of Bank Credit in the Seventh Federal Reserve District," United States Government Printing Office, Washington, 1935, pp. vi and 17-23.

¹⁸Arthur F. Burns and Wesley C. Mitchell, *Measuring Business Cycles*, New York, NBER, 1946, p. 460.

¹⁹For evidence on the effect of credit terms on the volume of consumer instalment credit, see Avram Kisselgoff, *Factors Affecting the Demand for Consumer Instalment Sales Credit*, Technical Paper 7, NBER, 1952; Moore and Klein, Appendix E; and Daniel B. Suits, "The Demand for New Automobiles in the United States 1929-56," *Review of Economics and Statistics*, August 1958.