The Role of Collateral in Small Business Lending

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Executive Summary

The purpose of this study is to identify the theoretical and practical justifications for the collateral requirements commonly imposed by banks, financial institutions, and other lenders and to describe the nature of these requirements in both developed and developing countries. In doing so, the hope is to determine the effect of these requirements on borrowers, in particular small business borrowers, and to evaluate the relationship between these requirements and loan guarantee programs such as that of the United States Agency for International Development (USAID). The study methodology consisted of an extensive review of the literature on both lending theory and practice, and small business lending in developing countries. The study also considers the theoretical implications and practical success of public policies that have been used to promote small business lending.

The theoretical justification for requiring collateral to secure a loan is quite straight forward. Any loan is associated with some risk of default. A successful lender must charge an interest rate and fee sufficiently high to cover its lending costs and obtain compensation for the default risk associated with the loan. Therefore, borrowers who are perceived to be less credit-worthy are charged higher interest rates. If a bank is unwilling or unable, for reasons of reputation, custom, or regulation, to charge interest rates sufficiently high to cover the perceived risk associated with less credit-worthy borrowers, then alternative measures can often be taken to offset the risk of the loan.

Pledging collateral is one method that has been used at least since the fourth century B.C. to reduce the risk borne by the bank in making such a loan. The role of collateral is to give the lender some recourse if the borrower fails to meet the terms of the loan. In doing so, it reduces the lender's exposure to default risk. It also gives the lender additional leverage over the borrower should some renegotiation be necessary after the original loan is made.

The empirical evidence supports the theoretical view that **borrowers who are perceived by banks to be less credit-worthy are better able to access credit when they can pledge collateral.** Without collateral, these borrowers would generally find their access

to bank credit restricted and, in many cases, would have to turn to nonbank credit for which they would typically be charged higher interest rates.

Small businesses have historically been considered less credit-worthy borrowers, and loans to them have generally been more costly to administer. This high perceived risk results mainly from: (1) lack of good financial information (requiring bankers to attempt to project cash flow to determine if the loan can be repaid), and (2) undesirable collateral (meaning collateral which does not earn interest). As a result, banks tend to shy away from lending to small businesses. **Collateral is, therefore, particularly important to these businesses' ability to access bank credit because it can make them more competitive in terms of reduced risk exposure from the point of view of the bank.** In general, collateral can add more **flexibility** to the lending process for both the borrower and the lender.

Although the required collateral-to-loan value ratios are typically quite high (100 - 200%), these high ratios are often more apparent than real. These apparently high collateral requirements reflect lenders taking into account the fact that borrowers will more likely default under poor economic circumstances when the value of their collateral is lower. Moreover, legal and practical problems of monitoring the collateral and gaining control of it at the time of default can be quite significant and costly.

Of course, small business borrowers cannot avail themselves of this added flexibility if they do not have access to the kinds of collateral that lenders are willing to accept, (i.e., collateral that earns interest and can be easily converted). Indeed, access to acceptable collateral has been a problem for small businesses in both developed and developing countries. Small businesses typically have equipment, inventory, and real estate which may be pledged as collateral, as compared with larger companies which have interest (dividend)-earning assets such as notes, commercial paper, bonds, and debentures. This problem has been addressed in the credit markets by nonbank lenders such as asset-based lenders in developed countries and informal credit markets in developing countries. These lenders typically have stronger relationships with the borrower and are able to exercise more control over the borrower's activities. They are also willing to accept a much wider range of collateral to support their loans than banks are. These lenders, however, also tend to charge significantly higher interest rates.

To try to improve small businesses' access to the formal credit markets, a number of programs have been used to encourage banks to lend to them, either by reducing collateral requirements or interest rates. Many of these programs - including those of the USAID's Bureau for Private Enterprise/Office of Investment (PRE/I), FUNDES, and the Deutsche Investitions- und Entwicklungsgesellschaft (DEG) - have provided partial guarantees for loans made to small businesses, particularly in developing countries. The key question that has been raised about the effects of these programs is: Does the comfort of a guarantee induce banks to make loans to small businesses that they otherwise would not make? The success or failure of a loan guarantee program should not be judged solely on its effect on the amount of collateral required. Rather, a full examination of the borrowers obtaining credit under the program compared to those who would have received it without the program is necessary. Banks may, for example, accept a broader range of collateral or less credit-worthy loan applicants when a guarantee is provided than they would without a guarantee, and it is typically the case that the bank will accept whatever collateral the borrower has, even when the loan has a guarantor.

To obtain more reliable information about the effects of a particular guarantee program's effect on access to credit, participating bankers and their borrowers would have to be questioned directly and probably rather intensely. The collection of this type of empirical data is beyond the present scope of this study and would require work in the field.

I. Introduction: Origins, Dynamics, and Effects of Collateral Requirements in the Lending Decision

The purpose of this study is to identify the theoretical and practical justifications for the collateral requirements commonly imposed by banks, financial institutions, and other lenders and to describe the nature of these requirements in both developed and developing countries. In doing so, the hope is to determine the effect of these requirements on borrowers, in particular small business borrowers, and to evaluate the relationship between these requirements and loan guarantee programs such as that of the United States Agency for International Development (USAID).

The method of evaluation for this project includes an extensive review of the literature on lending theory and practice, as well as that on small business lending in developing countries. The study also considers the theoretical implications and practical success of public policies that have been used to promote small business lending. To provide supporting evidence on the practices of commercial lenders throughout the world, a written questionnaire was administered to a number of commercial and central bankers (as well as others who would be in a position to know about regional banking practices) from around the world and selective interviews were sometimes undertaken in person.

A. Origins and Evolution of Collateral as a Banking Tool

1. Definition of Collateral

Collateral is defined as any property pledged by a borrower to secure a debt to a lender. In the event of default, a lender may seize the borrower's collateral, and, in bankruptcy proceedings, a secured lender has first claim to the proceeds from the collateral. Historically, collateral has often played an important role in the lending decision. Collateral is one of what lending texts (e.g., Ruth (1987)) refer to as the five "C's" in the evaluation of a borrower's ability to repay a loan. The other four "C's" are:

(i) the CHARACTER of the borrower;

(ii) the borrower's CAPACITY to generate a sufficient cash flow;

(iii) the amount of equity CAPITAL the owners have invested and how effectively it is being employed; and

(iv) the CONDITION of the economy in general and of the firm and industry in particular.

2. Origins and Evolution of Collateral in Different Lending Philosophies

The pledging of collateral to support loans has a long history in both domestic and foreign lending. References to the use of collateral date back at least to ancient Athens in the fourth century B.C. Lenders have always been interested in finding ways to ensure repayment of their loans, and collateral - whether property, a farmer's cow, or a family's mortgaged house - has often served this purpose. In modern banking, the use of collateral is a widespread and common practice in both developed and developing countries. For example, in the United States, about 70 percent of all loans are made on a secured basis. That is, they are required to have collateral support. (Berger and Udell (1988))

Indeed, many small banks require nearly all of their loans to be supported by collateral. (Hayes (1977)) Although practices differ among banks and other lenders, the traditional bankers' view is that collateral should be used only as a means to offset some weakness or weaknesses in the other four factors (i.e., character, capacity, capital and condition). An alternative lending philosophy, however, weighs collateral more heavily, and, as a result, allows more flexibility in accepting weaker financial statements when making a lending decision. These opposing views distinguish two schools of thought on the use of collateral in the lending decision.

The more traditional view arises from the banking theory of the early twentieth century. According to this theory, because banks were funded primarily with short-term demand deposits, they should make only short-term, self-liquidating loans. In other words, they should make loans that borrowers would immediately convert into merchandise or services that they would sell. The proceeds from these sales would be used to retire the loan. As a general rule, fixed plant and equipment as well as working capital should be financed out of accumulated savings and not through commercial bank credit. (Lazere (1988)) Loans that conformed to the recommendations of this theory, because of their self-liquidating features, were generally made on an unsecured basis.

Adherence to this lending philosophy, however, severely limited many borrowers' access to credit. In particular, the automobile industry, which was emerging and growing rapidly in the early part of this century, needed more flexible financing options. This led profit-seeking entrepreneurs to establish non-bank commercial finance companies that would lend on collateral such as inventories, equipment, and accounts receivable and that placed less emphasis on balance sheets and operating statements. These finance companies have come to be known as asset-based lenders because they expected their claim on collateral, particularly on accounts receivable, to provide a chief source of repayment for the loan. The commercial finance companies were the natural extension of "factor" companies, which actually purchased a company's receivables at a discounted price and assumed the credit risk. These factor companies have been active in the United States at least since colonial times, particularly in the area of international trade, and probably much longer than that elsewhere in the world.

The essential distinction between these two lending philosophies is the degree of emphasis placed on collateral when the lending decision is being made and the degree to which repayment of the loan depends on the value of the pledged collateral. Asset-based lenders place greater emphasis on the valuation and control of collateral because they fully expect the collateral to provide an important source of funds for the repayment of the loan. More traditional bank lenders, in contrast, tend to view collateral as providing a chance to retrieve some of their loan if all else fails.

Of course, once banks saw that significant profits could be made by lending to growing concerns and by following a more asset-based lending philosophy, they began to modify their procedures. The difficulties in perfecting collateral, such as multiple claims on the collateral and different laws pertaining to collateral across different states, however, caused banks to move only slowly toward placing more emphasis on collateral. These problems were largely resolved in the United States with the establishment of the Uniform Commercial Code in 1954 and its eventual adoption by nearly all states by 1964. This code made collateral perfection easier and encouraged banks to enter the field. At the same time, it reduced the advantages that specialized asset-based lenders had had in evaluating and establishing control of collateral. As a result, by the 1970s banks or their asset-based

lending subsidiaries held a substantial share of the market. The entry of banks into the field of asset-based lending caused a very rapid expansion in the volume of collateral-backed loans in the United States - from $50 million in 1934 to $75 billion in 1987.

The increased share of the market held by banks has had two important implications. First, the banks tend to place more emphasis on balance sheet conditions than the commercial finance companies do and, second, banks tend to pursue larger loans. The former result is simply the continued influence of standard banking theory. The latter, however, results from the fact that small loans are more costly to administer on a per dollar basis. So, because banks compute their charges as a percent of the loan balance, the smaller the loan, the higher the rate required for the bank to profit. In some cases, the required rate exceeds the rate the bank is willing to charge given its considerations of image, exposure, and lending philosophy. As a result, smaller borrowers may be excluded from bank credit even now that banks have adopted a much more flexible lending philosophy than they had 50 years ago.

The competitive market response has been a revitalization of entrepreneurial activities in the asset-based lending field. Finance companies are again establishing themselves as important lenders, albeit at high interest rates, to companies which find themselves excluded from bank credit. (Lazere (1988) and Rutberg (1988))

For the most part, this study will focus on the role of collateral as one component of the lending decision made by banks. In other words, it is concerned with collateral as a means to mitigate concern over weaknesses in the other "C's" (i.e., character, capacity, capital, and condition) rather than as an important source of actual repayment. Banks engaged in this kind of lending tend to become less involved in the borrower's business and exercise less control over the business's cash flows than asset-based lenders do. Monitoring costs also tend to be lower as the collateral and other aspects of the loan are evaluated less frequently. This choice of focus is appropriate because the banks involved in the USAID's loan guarantee program are involved in this kind of lending.

This is not to say that lending decisions in which pledged collateral is the crucial factor are not important. Indeed, in many developing countries, small businesses and farmers turn to the informal lending sector for their loans. Lenders in this sector in developing countries perform a role analogous to that of the non-bank, asset-based lender in

the United States. They may charge a much higher interest rate than banks do and may become more involved in the borrower's business, but they impose fewer accounting and financial statement requirements.

By its very nature, therefore, collateral has served as a means for borrowers who were not obviously credit-worthy either to compete with borrowers who were more obviously so or to convince lenders that they were likely to repay. As will be discussed in the next section, the needs of different borrowers have often been served by different segments of the credit markets. Some banks, for example, might specialize in higher quality credits and, therefore, place less emphasis on collateral. Other lenders may find it profitable to lend to the more marginal borrower and to rely more heavily on collateral to reduce their exposure to the risk of default. In either case, however, collateral continues to serve the same purpose it has always served - to increase the likelihood of repayment. Its importance in the lending decision will, of course, depend on the borrower, the lender, and the lending philosophy.

B. Overview of the Literature: Banking Theory vs. Conventional Practice

1. Interest Rate Policy and Collateral Requirements

Collateral, interest rates, and other aspects of a lending agreement are inherently linked. It is perhaps best, therefore, to think of a loan as a "package" of attributes (Plaut (1985)). These attributes include collateral and the rate of interest to be paid as well as the size of the loan, its maturity, and the repayment schedule. The loan package contains values of these five variables (and perhaps others).

From the lender's perspective, each borrower is at some risk of default. The less credit-worthy the lender perceives the borrower to be, the higher the interest rate must be to yield a given expected rate of return. The lender, however, can reduce the risk of loss in the event of default by: increasing collateral requirements (either in quantity or in quality), reducing the size of the loan, adjusting the payment schedule, or shortening the loan's maturity. In making these adjustments, the lender may be able to charge a rate more attractive to the borrower or to justify making a loan that he or she would otherwise not make.

2. The Relationship between Collateral and Borrower Credit Risk

The conventional view of collateral, as outlined above, is that it reduces expected losses on a loan. Because lenders are risk averse (i.e., prefer less risk for any given expected return or are only willing to accept more risk if they are rewarded with a higher expected return), collateral provides a means to achieve more flexibility in the lending process and can benefit both the lender and the borrower.

The most obvious reason for a lender to require collateral is that it can reduce the cost to the lender of a default by the borrower. In theory, a fully secured loan should not result in any loss to the lender upon default by the borrower. (As will be discussed below, this is rarely true in practice.) Therefore, borrowers whom the lender considers less than fully credit-worthy can receive better terms on the loan by pledging collateral. In fact, without collateral, an interest rate sufficiently high to compensate the risk-averse lender for the perceived risk may be prohibitive for the less credit-worthy borrower or too high for an image conscious bank to charge.

Example: Suppose a small business wishes to borrow $50,000 dollars for a project that it believes will generate a 12% return per year. The bank's lending rate for low-risk borrowers is 10%, but the bank considers this small business to lack a strong enough credit history to lend to without collateral support. The small business could turn to other lenders who specialize in high-risk lending, but their rate is 14% and, thus, not profitable. A pledge of collateral to secure the loan may cause the bank to re-evaluate the riskiness of the loan and be willing to lend to this borrower at its 10% rate. Without collateral, the small business would not have been able to borrow at a rate that made its project profitable.

The risk of default is compounded by two further difficulties inherent in any loan transaction. The first is **the moral hazard problem** that results from the fact that once the loan is made the borrower has both the incentive and the ability to default at expense of the lender. The second problem, **adverse selection**, arises because, given the moral hazard problem, those most likely to benefit from it -- i.e, those mostly likely to default -- are the

ones with the greatest incentive to borrow. Because of these problems, banks often try to establish ongoing relationships with borrowers both because they come to know the character of the borrowers better and because the need to obtain future loans increases the borrowers' incentive to fulfill their repayment obligations. Easily accessible credit histories are also important in this respect.

In addition to these safeguards, lending on a secured basis can mitigate, at least to some degree, the problems of moral hazard and adverse selection (Barro (1976)). If, in the case of a default, the borrower stands to lose something of equal or greater value than the loan, then the incentive to default is removed. In this way, collateral gives the lender greater control over the borrower. In general, in the face of these problems, collateral is likely to lead to more lending because it can both reduce the cost of default to the lender and raise it to the borrower. This is the conventional view of collateral held by bankers (Morsman (1986) and Hempel, Coleman, and Simonson (1986)).

Another strand of the theoretical literature, however, suggests an alternative possibility. If the market for loans is dominated by asymmetric information - i.e., the inability of the lender to accurately rank potential borrowers by risk - then the appeal to collateral may not increase the amount of lending to less credit-worthy borrowers. (See, e.g., Chan and Kanatas (1985) and Besanko and Thakor (1987)) Because borrowers have better information about their ability to repay loans than the lender does, they may wish to pledge more collateral as a signal to banks that they are a good credit risk. Without collateral, lenders would have to charge higher interest rates or ration credit as a means of increasing the likelihood of repayment. (Stiglitz and Weiss (1981)) Because higher rates can lead to problems as more risky projects (adverse selection) are pursued by borrowers in an attempt to generate the profits necessary to pay the higher rates, credit rationing is more often the choice of the lender. This could lead to a situation where more collateral is pledged to secure less risky loans. Less credit-worthy borrowers, who would be less willing or less able to pledge collateral, would, most likely, be precluded from the market or at least face severe quantity constraints on the amount they could borrow.

Which of these two theoretical possibilities is the norm in the loan market is an empirical question. In a study by Federal Reserve Board economists (Berger and Udell

(1988)), the evidence clearly confirms that the conventional view dominates the market. The researchers find that, **empirically, collateral is most often associated with loans to less credit-worthy customers.** In other words, even with the security of collateral, lenders experienced greater losses on secured loans than on unsecured loans. This is clear evidence that lenders are more likely to require collateral when they consider a particular loan or a particular borrower to be a greater risk.

In contrast, **unsecured loans appear to be made only to borrowers with clear evidence of their ability to repay.** Such evidence would include " . . . strong equity capital positions, stable cash flows, and more certain investment opportunities." (Hempel, Coleman, and Simonson, p. 391) In short, only borrowers with obvious strength in the first four "C's" (character, capacity, capital, and condition) listed in Section A are able to borrow without the fifth "C" (collateral). The conventional lender's view of collateral, therefore, receives both theoretical and empirical support in the literature, and it seems safe to conclude that collateral generally serves to increase the likelihood of borrowers who are perceived to be less credit-worthy obtaining loans. Even under the alternative view, however, the ability of less credit-worthy borrowers to pledge collateral would also reduce the lender's uncertainty and would be likely to increase the size of, and decrease the interest rates (toward those paid by more obviously credit-worthy borrowers) on, loans to these borrowers.

3. Collateral Requirements, the Valuation of Collateral, and Cash-Flow Analysis

In the preceding subsection, the discussion focused on the theoretical importance of collateral. In this subsection, the discussion turns to the practical issues of collateral valuation and cash-flow analysis. As it turns out, these practical problems are directly linked to the theoretical issues surrounding the importance of collateral in mitigating the moral hazard problem.

a. Loan Analysis and Cash Flows (Large and Small Businesses)

Although lenders recognize borrowers' cash flows as the key factor in their ability to make timely principal and interest payments, they also recognize that they often are not in a

position to properly evaluate these cash flows. Moreover, even if they were able to properly evaluate a borrower's cash flows, lenders may be unable to control those flows and to ensure that they are used to repay the loan. For this reason, lenders require collateral to secure the loan. The more difficult it is to obtain accurate and trustworthy information about a borrower's current and expected future cash flows, the more important the ability to secure the loan with collateral will be. The very nature of a small business, for example, especially a relatively new small business in a volatile economy, suggests that we should expect lenders to set relatively high collateral requirements on their loans to these businesses.

The importance of collateral to the potential borrowers' ability to obtain a loan varies across businesses and countries depending on the availability of the information necessary for the lenders to make reasoned judgments about the borrowers' financial conditions. Large corporations and even medium-size businesses produce copious amounts of financial information as a matter of course. In contrast, small businesses (Rudnick (1988)), particularly small businesses in developing countries, often keep poor records or no records at all. Under these circumstances, even the most sophisticated forms of financial analysis, lacking the necessary information, will fall short in providing accurate assessments of the borrower's current and future cash flows. Collateral, therefore, continues to be important in decisions to lend to small businesses precisely because they more commonly show weaknesses, or only have strengths that are difficult to judge, in the other four "C's."

b. Types and Valuation of Collateral

Borrowers, whether small or large, can pledge a wide range of assets as collateral in support of a loan. Typical forms of collateral include, but are not limited to:

- interest earning assets/financial securities,
- real estate,
- accounts receivable,
- inventories, and
- equipment.

Small businesses, which typically lack adequate financial statements, are likely to be unable to pledge either interest-earning assets or real estate to secure a loan. They are,

therefore, limited to the remaining forms of collateral which are typically less marketable. The lack of marketability of these forms of collateral will (as discussed more fully below) cause lenders to require a higher collateral-to-loan value ratio to secure a loan than they would if more marketable assets could be pledged. In addition, many small businesses have only what might be called indivisible or "lumpy" collateral. So, even though the market value of a given piece of equipment might be very high relative to the loan amount, its entire value is pledged as collateral because it is the only collateral the small business possesses. This practice, of course, will tend to inflate the measured collateral-to-loan value ratios for small business loans. Lending texts, however, caution against undue reliance on collateral in lending decisions due to much the same set of difficulties surrounding the proper evaluation of cash flows. Because of the difficulties in collateral valuation, in gaining control of collateral, and in selling collateral once control is gained, lenders who look to collateral as a primary source of repayment are considered imprudent. Indeed, in a 1988 study of bank failures (Graham and Horner (1988)), the Office of the Comptroller of the Currency found undue reliance on collateral to be more prevalent in failed than in healthy banks.

As Barro (1976) points out, and as is known only too well by lenders, the value of collateral to the borrower is different than its value to the lender. Moreover, the value of any given collateral is stochastic. That is, its value fluctuates over time as economic circumstances change. For collateral to reduce effectively the cost of a loan default to the lender, it must have a value to the lender that is close to that of the loan at the time of the default. The lender's assessment of the collateral's value should be of its resale value under the worst possible circumstances, because it is under these circumstances that the borrower will most likely default on the loan.

In determining the **value of collateral**, the lender should be concerned with:

(i) the **location** and ease of acquisition of the collateral,

(ii) the collateral's **liquidity** (Is there an active secondary market?), and

(iii) any potential **legal problems** in the claiming or the reselling of collateral.

Obviously, different assets will have different ratios of borrower-to-lender valuation. Collateral requirements for a given loan, therefore, will differ depending on the type of

collateral pledged. For example, surveys of lenders (Hayes (1977)) reveal that the collateral-to-loan value ratio for:

- **government securities** is typically 110%,
- **specific accounts receivable** is 140%, and
- **inventories** is 200%.

Similarly high ratios are required by the Deutsche Investitions- und Entwicklungsgesellschaft (DEG) when making or guaranteeing loans in developing countries. DEG typically asks for collateral in the form of mortgages or pledges of machines and equipment and generally limits lending to 60% of the pledged collateral - i.e., a collateral-to-loan ratio of 167%. These high collateral-to-loan ratios seem to be broadly consistent with those in many regions. The Small Business Development Corporation in South Africa, for example, reports that commercial banks involved in their programs often require up to 200% collateral-to-loan ratios. Collateral-to-loan ratios for banks participating in A.I.D.'s small business loan guarantee programs, however, are significantly lower than the averages reported by these other organizations. (See tables 1 and 2)

As discussed above, however, collateral is also valuable in raising the cost of defaulting to the borrower. In the case of a complete inability to pay, this role of collateral is inconsequential. In many cases, however, the borrower has at least some ability to pay, but due to the moral hazard problem, is not doing so. With asymmetric information, the lender may be unable to determine whether the borrower has the ability to pay. Even without information asymmetries, the borrower controls cash flows and may simply choose not to use them to repay the loan. It is obvious, for example, that the borrower would prefer to use cash flows to pay employees and suppliers rather than lenders.

Under either of these circumstances, collateral gives the lender some additional leverage in the negotiation process. The threat of the loss of collateral may be sufficient to cause the borrower to continue to make timely payments on the loan when he or she otherwise would not. In fact, in this kind of situation, the borrower might capitulate even if the collateral has little value to the lender simply because it has substantial value to the borrower. Moreover, when the borrower's ability to repay is truly impaired, the lender

might choose to renegotiate the loan or enter into some kind of workout agreement. If so, a claim on collateral can put the lender in a better negotiating position.

These advantages of holding claim to collateral, however, should not be viewed by lenders as a panacea. Although it does improve the lender's leverage in negotiations with the borrower, it does not preclude the borrower from defaulting anyway. This possibility is particularly likely if the borrower realizes that the lender does not really wish to foreclose and take possession of the collateral, as would be the case when the collateral had little liquidation value.

For this reason, collateral does not provide a reason to reduce the usual amount or stringency of analysis that precedes a lending decision. Once the collateral is pledged, the careful lender will also wish to collect information regularly as regards the condition and value of the collateral. The presence of collateral, therefore, is not likely to result in significant disincentives to thorough loan analysis and the usual amount of monitoring. These problems are much more likely to arise in situations where government, or other third party, programs insure lenders against loss. This issue will be addressed below. Specific information relating to loan analysis and supervision required cannot be provided.

c. Special Problems for Collateral Valuation in High Inflation Countries

In high inflation countries, the major concern of lenders in valuing collateral must, of course, be the effect that high inflation rates will have on its value. When inflation rates reach three, four, and five digits on an annual basis, the effect of most other factors on the value of collateral will be dwarfed by the effect of inflation. In particular, any nominally valued financial asset with a fixed interest rate will become essentially worthless in an extremely short period of time. Only physical capital and financial capital with values indexed to the inflation rate have any chance of maintaining their values in these situations. Similar problems arise with assets denominated in foreign currencies when volatile inflation rates cause exchange rate volatility. In either case, lenders typically respond by raising collateral requirements to protect against the increased uncertainty in the collateral's value.

4. Collateral Perfection: The Importance of the Legal and Regulatory Framework

As discussed above, the acceptance of the Uniform Commercial Code by nearly all states stimulated the rate at which banks were willing to make loans that relied more heavily on collateral support. Without a legal framework to guard against the pledging of the same collateral to multiple creditors and to provide clear procedures for the acquisition of collateral, relying to any degree on collateral when making a loan can be unduly risky. The less precise the laws are and the more difficult it is for the lender to perfect claims on collateral, the more collateral they must require to obtain a given amount of protection against losses.

If laws are imprecise and long legal battles are necessary to gain control over pledged collateral, then the lender's funds are tied up for a longer time -- not to mention the legal costs themselves. Under these circumstances, the legal costs and the costs of foregone interest may eventually exceed the original principal. In order to account for these potential legal costs, a lender must require collateral of more than 100% of the principal to fully secure the loan. Of course, the problem is exacerbated if the pledged collateral is depreciating during the process. As will be discussed below, such legal and bureaucratic difficulties are quite common in developing countries.

C. Overview of Regional Lending Practices

1. Comparison of Developed and Developing Countries

a. Methods of Loan Analysis

According to the literature review, interviews, and responses to the survey questionnaire in Appendix 1, lenders in both developed and developing countries use standard methods such as cash-flow analysis, ratio analysis, and past experience with the borrower to evaluate a potential borrower. In this sense, the kind of analytical tools used seems roughly equivalent in the two groups of countries. Of course, to say that the same tools are available and are used is not to say that banks in different countries place equal emphasis on the same tools or use them equally well.

Even within the Group of Seven countries some differences in lending styles and methods are apparent. For example, relatively more emphasis is placed on cash-flow analysis in the United States and Canada, while in the United Kingdom more emphasis is placed on the quality and quantity of the borrower's assets. As a result, commercial banks in the U.K. are more likely to lend working capital or even equity capital against a borrower's assets while U.S. and Canadian banks will insist on strong cash-flow projections. In part, these differences arise because of the system of branches and the degree of authority held by the branch manager (called "relationship manager") in the U.K.'s commercial banking system. This system makes the commercial banks in the U.K. more like small local banks in the United States and less like large regional or money center banks. The U.K. banks, however, tend to consider collateral less important than even small U.S. banks do. In Germany, as in the United States, collateral requirements are normally a part of the lending process, particularly for long-term loans to smaller borrowers and for loans arranged through public subsidy programs.

In contrast to these differences, largely in style, among banks in different developed countries, the differences that arise between lending procedures in developed and less developed countries are more often due to the amount of available information and the ability to process the information that is available. In developed countries, more information is readily available. Businesses in developed countries are required to maintain better records, for tax purposes if nothing else, than businesses in developing countries. As will be discussed below, this is a significant problem in small business lending, particularly in developing countries.

b. Legal Frameworks

As discussed earlier, a country's legal framework is of utmost importance to the lending decisions. An unclear or inconsistent set of laws or an unduly complicated legal system can greatly restrict the efficiency of the credit markets and the allocation of credit. For the most part, neither developed nor less developed countries impose legal requirements on the use of collateral in lending agreements. One exception is that in some countries land cannot be used to secure a loan. (Braverman and Guasch (1989)) This is particularly

important in the case of farm loans where land is the borrower's primary asset. Differences in collateral-to-loan ratios across countries are more likely to arise from customary laws and legal complexities affecting the ability of the lenders to gain control of the collateral rather than to specific legal requirements on collateral.

In general, legal systems in developing countries create more difficulties for lenders than those in developed countries. As outlined in the World Development Report 1989 (pp. 85-89), developing countries in transition from colonial rule often have conflicting legal frameworks (cultural custom vs. imported colonial law) that make the settlement of disputes difficult. "Legal systems in developing countries often favor the borrower by making it hard for the lender to foreclose on collateral." (p. 88) For example, in South Asia it is common for lawsuits to establish a claim to collateral to last two years. Moreover, once a claim is established, another suit is often required to execute the claim. The whole process may take five-to-eight years.

To make matters even worse, developing countries often do not have clear rules about land title and for the transfer of such title. (Gershon Feder, in his study of credit markets in Thailand, found that better land title laws improved the allocation of credit in formal credit markets. (Feder (1986)) Because land is often a preferred form of collateral by lenders, this increases the difficulty of securing loans. Such legal problems reduce the value of a given amount of collateral. In some cases, this may result in lenders requiring a larger collateral-to-loan ratio to secure a loan. If the legal difficulties are considered too onerous, however, lenders may forego making loans for which they would require collateral. (These legal differences are at least part of the explanation for the wide range of collateral-to-loan ratios evidenced by the information from the loans made through A.I.D.'s PRE/I loan guarantee program, see Table 2 in the Appendix.)

c. Regulatory Frameworks

Another potential source of differences between lending practices in developed and developing countries arises from alternative sets of regulations or forms of public assistance. Nearly all countries have some kind of regulatory intervention in credit markets and, as is often the case with government intervention, the actual outcomes may differ considerably

from those that were intended. Governments in developing countries are more likely to be directly involved in the allocation of credit. Although most developed countries have programs analogous to those of the Small Business Administration's programs in the United States, they typically do not have the kind of directed lending, (where banks are required to make a certain percentage of their loans to certain borrowers), prevalent in many developing countries. These programs, however, are on the decline, even in developing countries, with the advent of renewed faith in the workings of economic markets. Nonetheless many such programs are still in place. Some common programs and the effects they are likely to have on the allocation of credit and on collateral requirements are described in Section III.

d. Informal Credit Markets

Informal credit markets in developing countries provide another way of avoiding legal and regulatory requirements. These markets include savings clubs, rotating funds, mobile bankers and moneylenders, and financial dealing among families and friends. Through these mechanisms loans are made to people and microenterprises (the distinction is often not entirely clear) in their villages or immediate geographic vicinity. Often, they have distinct advantages over banks and other lenders who require more formal lending arrangements. These advantages include much quicker loan processing (i.e., immediate availability of funds), more flexible collateral requirements, and informational advantages due to their proximity to and historical relationship with the borrowers. (For example, Feder (1986) found that land title was not nearly so important in the informal credit markets as in the formal ones.) Although these lenders exact a cost (often perceived to be an exorbitant one) in terms of high interest rates and collateral requirements, they serve an important role in these communities. Without them, it is likely that considerably less, and possibly no, credit would be available to these borrowers. These informal lenders often provide the same services that asset-based lenders provide in developing countries.

The informal sector is particularly important when regulatory and legal constraints act to reduce access to credit in the formal credit sector. The personal relationships often found between borrowers and lenders in the informal sector reduce the need for explicit laws concerning the perfection of collateral. Personal knowledge is sufficient to determine

whether collateral has been pledged elsewhere. In addition, peer pressure works well to encourage repayment or, if necessary, to allow the creditor to acquire the pledged collateral. By keeping the relationship informal, borrowers and lenders can also often avoid taxes, registration fees, and other costs of doing business in the formal sector. In Guatemala, for example, a 3% registration fee is payable when collateral is registered as well as when the loan is registered.

Small businesses are also more likely to pursue their credit needs in the informal credit markets when government policies favor larger enterprises. It is not surprising, therefore, that in countries (e.g., Bangladesh, India, Indonesia, and the Philippines) where part of the development strategy has been to encourage larger enterprises via tariff protection and foreign exchange benefits, informal markets continue to flourish. (Asian Development Outlook 1990, pp. 132-3)

2. Comparison of Developing Regions

a. Regional Differences - Latin America, Africa, Asia, and the Middle East

There is a clear gap in the literature on collateral practices in specific regions or countries in the developing world. Much work has been done on the role of interest rates and credit market policies in lending, but the few working papers dealing specifically with collateral are outdated. The growing literature on microenterprise development has not dealt with collateral practices specifically beyond pointing out the important role of solidarity groups as a form of loan guarantee. Moreover, because of the rapid changes in the world's credit markets, and the move toward financial liberalization in many developing countries, studies more than a few years old are dated. This section, therefore, is merely intended to outline some general aspects of the credit markets in the different regions of the developing world. A detailed evaluation of collateral practices in individual countries would require a more extensive study that allows for field research involving discussions with credit market participants in different countries and empirical data gathering.

While differences in lending practices and legal and regulatory frameworks certainly exist across geographical regions, it would be difficult if not misleading to try to broadly

categorize these practices by regions. Individual countries within the same geographical region may follow similar practices but may, just as likely, follow very different ones.

- **Latin America**

Latin American lending practices often involve a combination of collateral in the form of liens on fixed assets and personal guarantees. Banks have come to this policy as a consequence of the effects of high inflation rates on nominally valued collateral (e.g., cash or securities in compensating balances). Such problems are exacerbated by the frequent use of interest rate ceilings and by restrictions placed on handling foreign exchange accounts domestically. The prevalent use of personal guarantees arises from the frequent requests of politicians or other influential nationals that the banks make certain loans. The banks respond to these requests by asking for the recommender's personal guarantee. Because this guarantee is often not legally or practically enforceable, this practice can lead to what appears to be exaggerated collateral requirements. Although such personal guarantees are less likely in small business lending, the inability of banks to take possession of collateral or to collect on personal guarantees is a common problem in Latin America where legislation typically tends to protect borrowers more than lenders.

- **Africa**

Credit market conditions in Africa, as in all other regions, vary across countries. A World Bank report (Sub-Saharan Africa: From Crisis to Sustainable Growth, p. 169) describes the situation as follows:

> At independence the financial sector of African countries consisted of banks catering principally to expatriate communities, post office savings banks, cooperative societies, and money lenders. Since then it has expanded, but the quality of services has evolved differently among countries. In some the banking system has become virtually illiquid . . . [Equatorial Guinea and Guinea in the early 1980s; Angola, Benin, and Mozambique in the late 1980s]. In contrast, in Kenya and Nigeria financial services have improved and deepened.

Nonetheless, there are similarities with the Latin American credit markets. Collateral requirements and the inter-relation between business and politics are consistent across the two

continents. Several countries in Africa (e.g., Sierra Leone, Ghana, Zaire, and even Nigeria) have also recently experienced such high rates of inflation as to make lending in domestic currencies prohibitively expensive. In the countries with more stable price levels (e.g., Botswana, Gabon, and The Gambia), lending policies parallel those in Latin American countries with low-to-moderate inflation rates. In most African countries, the highly regulated formal credit markets have resulted in a significant role for informal credit markets. This is particularly true when inflation and foreign exchange restrictions conspire to make "black" markets the only viable credit markets. According to a World Bank report (Sub-Saharan Africa from Crisis to Sustainable Growth, p. 137), the informal sector supplies the majority of credit to certain groups of borrowers, particularly small and medium-scale enterprises. Indeed, in many African countries, there is a general lack of confidence in the banking system. (p. 172)

- Asia

In Asia, as in the other regions, government has been actively involved in the credit markets, and, also as in other regions, success has been mixed. According to the Asian Development Bank (Asian Development Outlook 1990, p. 25), many policies have been used to promote lending to priority sectors. These policies, however, have often resulted in a small number of large banks dominating a particular sector of the credit markets. These banks, with a large vested interest in the status quo, are now quite resistant to reforms designed to promote more competitive credit markets.

Recently, however, many Asian countries have begun to move toward financial market liberalization, including the establishment of securities markets. In Indonesia, for example, "such reforms have resulted in rapid expansion and diversification in the financial sector which has taken even reformers by surprise. Reforms have led to a marked increase in deposit mobilization and keen competition for business that has lowered lending rates." (Asian Development Outlook, p. 25) This process has been spurred by the increased role of private rather than state-owned banking institutions. Similar changes are taking place in other Asian countries as well. In Thailand, interest rate ceilings have been removed from long-term deposits, taxes have been reduced, and bank-licensing requirements have been

relaxed. Even in the Philippines and Malaysia, where regulations are still quite strict, reforms are being considered and some consolidation and restructuring has taken place. (p. 26)

Nonetheless, credit markets in these countries are still far from freely competitive, and examples of continued government intervention are easy to find. In Korea heavy reliance is still placed on direct quantitative and qualitative credit controls. In Thailand, different types of borrowers are still treated differently in ways that distort the allocation of credit. In the Philippines, monopoly power in the heavily concentrated financial sector has resulted in extremely wide margins that discourage both saving and investment. As in all developing regions, these distortions in the formal sector result in an active informal sector. For example, in Thailand 44% of total debt, in Nepal 76% of the rural debt, and in India 40% of household debt is financed in the informal credit markets of those countries.

- Middle East

In Middle Eastern countries with strong Islamic influences, lending follows the "Shari'a" concept. Islamic law prohibits the payment of interest on loans. The lender, therefore, typically becomes a participant, at least theoretically, in the borrower's enterprise and shares in its profits or losses. Here again, informal credit markets provide a means, albeit often an expensive one, around this sort of arrangement. The major effect of adherence to the Shari'a concept is that the banks typically take a much more active role in monitoring and controlling the venture for which it has allocated funds. (Iqbal and Mirakhor (1987), p. 4) In this way, the banks are more likely to keep better control over collateral and generally have more information about the condition of the "borrower."

b. Effects of Macroeconomic Activity and Policies on Credit Market Activities and Collateral

Across the developing world, macroeconomic activity tends to be much more volatile than it is in developed countries. Rapid inflation, volatile foreign exchange rates, huge government deficits relative to gross domestic product, among other problems make investing and lending in these countries an often risky proposition. To make matters worse, the

typically close relationships between the governments and the financial sectors of these countries often result in much more direct and significant effects of macroeconomic policy decisions on activities in the credit markets.

A major macroeconomic problem in many of these countries, particularly those in Latin America and Africa, has been large fiscal deficits. The governments often involve the banking systems in their attempts to finance their deficit spending. In several African countries, for example, governments, tightly tied to the commercial banks, are often in arrears on large loan payments to the banks. In this way, the private banks are forced (taxed) to help finance the public debt. (Sub-Saharan Africa, p. 169) An alternative strategy used in South Asian countries (e.g., India) involves subsidizing domestic interest rates or using explicit interest rate ceilings to ensure low-cost financing for the government. (Asian Development Outlook, p. 26)

Under either of these policies, the effect on the credit markets is to reduce the availability of funds. On the one hand, arrears on government debt requires the banks to do without those funds and requires them to charge higher interest rates on other loans to remain profitable in the face of the losses on the loans to the government. On the other hand, the low interest rates discourage domestic savings and limit the amount of funds deposited in the banking system. With fewer funds available to lend, banks will limit themselves to only the most obviously profitable loans. These will often not include loans to small business borrowers especially those without strong collateral. In general, one should expect a shortage of funds to cause banks to require more and higher quality collateral from the borrowers they perceive to be less credit-worthy.

Another common way in which developing countries finance their fiscal deficits is by "printing" money. The obvious result of this macroeconomic policy strategy is to create high and rising inflation rates. In some countries, particularly in Latin America and Africa, these inflation rates became astronomical. High and volatile inflation rates significantly increase the risks of making loans. Moreover, in combination with interest rate ceilings and foreign exchange controls, the high inflation rates can completely disable the normal workings of the formal credit markets. As discussed in Section I.B.3.c. above, high inflation rates greatly

impair the usefulness of nominally valued collateral and are, in general, likely to increase collateral requirements.

Recently, with the move toward financial deregulation, many countries (e.g., Bolivia, Argentina, and several African countries) have taken steps to reduce inflation and to achieve monetary stabilization (i.e., a stable valued currency). While such stabilization is clearly in the long-run best interest of these countries, its short-run effects can be to severely reduce the liquidity of the financial sector. The reduced liquidity, essentially a reduction in the supply of loanable funds, typically results in high real interest rates that discourage potential borrowers from seeking loans. Once again, small businesses are likely to have difficulty competing for these high real rate loans.

Finally, many developing countries have high levels of international debt and have had to follow austerity plans (i.e., reduced standards of living) in order to accumulate the foreign exchange necessary to meet their international obligations. Such policies, in common with anti-inflation policies and financial liberalization policies in general, require reduced deficit spending by the government and reduced governmental subsidization of the credit markets. These changes related to macroeconomic policy decisions will undoubtedly continue to have significant effects on the credit access and competition in the credit markets. They create additional uncertainty in financial arrangements of all kinds and are likely to cause banks, in an attempt to mitigate this uncertainty, to either raise collateral requirements or reduce lending to marginal borrowers.

3. Summary of Problems of Lending in Developing Countries

In the preceding discussion of lending practices in developing and developed countries, it should have become clear that any problem or policy that makes credit markets work less smoothly in developed countries does so to a magnified degree in developing countries. Moreover, credit markets in developing countries have many additional problems not generally found in developed country credit markets. Many of these problems result from government intervention - e.g., interest rate ceilings, minimum credit requirements - in the credit markets in ways that restrict the ability of market forces to allocate credit efficiently.

Perhaps most important, however, is the failure of many developing country governments to provide a stable and efficient legal system to handle the inevitable disputes that arise in credit market transactions. Adding to these problems is the prevalence of macroeconomic instability. These problems, coupled with the often inadequate accounting and auditing procedures, weak bank supervision, and other difficulties, have resulted in significantly higher loan loss rates in developing countries. **As of 1989, for example, while banks in developed countries had loan losses of only 1% of their outstanding balances, banks in developing countries had more than 20%.** (World Development Report 1989, p. 85)

II. The Effect of Collateral Requirements on Small Business Development

Before pursuing the role of collateral requirements and other practices in small business lending, a definition of small business should be provided. The A.I.D. Bureau for Private Enterprise/Investment Office defines this small business target group by establishing a ceiling level of net fixed assets, meaning total assets net of land and buildings. Businesses with net fixed assets exceeding the ceiling would be considered medium or large businesses. The definition is established on a country by country basis. In some countries, notably the Philippines, there may be a range in the definition reflecting the region where the small business is located. In a few countries, the small business definition also reflects a maximum level of personnel.

Determining the ceiling level of net fixed assets is done in consultation with other international agencies active in the area, the local USAID Mission, and the business and banking community. The net fixed asset ceiling ranges in size from US$250,000 equivalent to US$500,000 equivalent. Examples are:

- US$ 250,000 in Uganda, Ghana and Nepal
- US$ 350,000 in Jamaica and Costa Rica
- US$ 500,000 in Indonesia, Mexico, Nigeria and Morocco

A. Obstacles Small Businesses Face in Obtaining Credit

1. Perceived High Costs of Lending to Small Businesses

The conventional wisdom of bankers is that small business loans are more expensive to initiate and maintain than loans to larger scale operations. The reasons underlying these differences are (Levitsky and Prasad (1987) quoted from p. 1):

> (1) Lending to small enterprises is considered to be risky. The uncertainties facing small industry, the high mortality rate of such enterprises and their vulnerability to market and economic changes make banks reluctant to deal with them, and there is a parallel reluctance on the part of small-scale enterprises. . . to borrow from banks.

(2) Banks and financial institutions are biased in favor of lending to large corporate borrowers. In some countries there are links between banks and corporate borrowers that take the forms of joint directorships, joint ownerships, and various other joint financial dealings.

(3) The administrative costs of lending to small enterprises are high and cut deeply into the profitability of such loans.

(4) Small enterprises seeking loans are unable or unwilling to provide accounting records and other documentation required by banks, or to provide securities or collateral for the loans.

Officials of organizations that attempt to improve small businesses' access to credit attest to the importance of these problems. FUNDES, a Swiss organization that provides a variety of services to small business borrowers in Latin America, has found that simply gathering the information and getting the potential borrowers to present it in a "bankable" form is quite costly and very often is one of the major barriers to small business access to formal credit markets. The results of the survey questionnaire indicate that simply getting the potential borrower, who may be inadequately educated, to provide the information needed to evaluate the need for a loan and ability to repay the loan is quite difficult. This is aside from any attempt to verify the information once it is obtained.

Although many of these problems are more severe in developing countries than in developed countries (where information availability and educational levels are generally better), small businesses are considered less credit-worthy by banks in all countries. Some recent evidence from the United States suggests that this is a valid concern. M. Gertler and S. Gilchrist (1992) provide evidence that small business performance is more sensitive to business cycle swings than large businesses. Further, restrictive monetary policies, intended to stabilize prices in an inflationary economy, tend to result in greater sales declines for small relative to large firms. In keeping with this evidence, they also find that, during economic slumps, banks tend to restrict lending to small firms before they restrict it to larger firms. All this evidence is consistent with the view that small businesses have a tougher road

to follow in accessing credit than large businesses do. And the generally less stable macroeconomic conditions in developing countries would tend to accentuate the problem.

2. Policies to Increase Small Businesses' Access to Credit

In attempts to increase access to credit for preferred groups of borrowers, including small businesses, various countries have implemented different policies aimed at increasing lending, lowering interest rates, or reducing collateral requirements. (Much of the remaining discussion in this section derives from Virmani (1989).) They include: interest rate ceilings, interest subsidies, subsidized rediscounting, minimum lending requirements, and loan guarantees. These polices have been used alone or in combination and often without success. Because loan guarantee programs are the main interest of this study, they will be discussed in greater detail in Chapter III. The other programs are discussed more briefly below.

- **Interest Rate Ceilings**

Interest rate ceilings, as mentioned above, are highly invasive policies. They prevent the interest rate from adjusting to market forces and from doing its job of allocating credit. Lenders who are unable to charge an interest rate sufficiently high to cover their expected costs on a loan must either make less risky loans (perhaps by reducing the size of loans to existing borrowers or by seeking more obviously credit-worthy borrowers) or reduce the risk associated with existing loans by increasing the amount of collateral required. For example, suppose a bank separates potential borrowers into two categories - obviously credit-worthy and less obviously credit-worthy. Suppose further that the bank lends to the former at 10% and to the latter at 12% (unless substantial collateral is pledged). The bank charges the higher rate to offset the greater likelihood of default that the bank perceives for loans to the less obviously credit-worthy borrowers. Now, if the government imposes an interest rate ceiling at 10%, the bank will no longer lend to the less obviously credit-worthy borrower (or at least not lend as much) unless they can reduce the bank's uncertainty about their ability to repay the loans. Pledging more collateral is one way to do this. Notice,

however, that the interest rate ceiling removes one option, the option of paying higher rates with less collateral.

- **Interest Subsidies**

Interest subsidies simply increase the bank's interest income from loans to the specified group. This mechanism then allows the lender to make the decisions about to whom and how much to lend. This sort of subsidy program has seen more success than most other types of regulatory intervention. In theory at least, it should encourage banks to lend to the specified group, and, in doing so, increase that group's access to credit. If the subsidy is sufficiently large, it is probable that banks would reduce collateral requirements as a means of making their loans to the specified group more attractive to borrowers.

This would work as follows: A bank that is lending to a particular group of borrowers at, say, 10% and is requiring a certain amount of collateral would, with an interest rate subsidy, earn more than 10%. The increased earnings makes loans to this group more attractive to the bank. To increase lending to the subsidized borrowers, and thus increase income through the interest subsidy, the bank might be expected to lower its lending rate to this group or to reduce the amount of collateral it requires on loans to this group.

- **Subsidized Rediscounting**

In some developing countries rediscounting opportunities are available for a greater variety of loans than in developed countries. In the United States, for instance, banks typically borrow from the Federal Reserve through rediscounting United States Treasury securities, while in many developing countries (e.g., Algeria, Bangladesh, Bolivia and South Korea) substantial portions of a bank's loan portfolio is eligible for rediscount. These policies may involve subsidized rediscounting of loans made to specified groups of borrowers (e.g., farmers or small businesses) as a means of encouraging lending to those groups. (Virmani (1989) This policy allows banks to

borrow against these loans at rates generally below their deposit rate. Under reasonable circumstances, this kind of policy works in the same manner as a policy of subsidizing interest payments and could, theoretically, lead to reduced collateral requirements for borrowers in the specified group.

- **Minimum Lending Policies**

Another policy that attempts to circumvent competitive market forces is a minimum lending policy that forces a bank to lend more to a borrower than it would in the absence of such a policy. Indonesia has had such a policy, requiring 10% bank loans to go to small businesses. Until the recent credit market liberalization, Mexico had a similar policy though banks could, and most did, opt for government securities instead of small business loans. Of course, small businesses need not be the object of the minimum lending policy. Indeed, several countries have tended to direct lending toward larger industrial concerns. In these cases, the result is likely to be less lending to small businesses and other non-preferred groups. Minimum lending policies are likely to result in at least a perceived higher risk of loss to the bank and may cause it to raise collateral requirements or even its lending rates to mitigate its increased exposure to risk.

In some instances, a minimum lending policy is combined with an interest rate ceiling to result in a "forced lending policy." (Virmani (1989), p. 68) **This combination policy induces lenders to increase collateral in order to reduce their exposure to risk.** Moreover, such policies are likely to cause significant misallocation of capital given their highly invasive nature. That is, they prevent market forces from working and may lead to attempts to circumvent the regulations such as black markets, bribery, and other forms of corrupt activities. Evidence from Bangladesh and Korea indicates that forced lending policies have caused significant problems in resource allocation.

3. Inadequacy of Small Business Collateral

As discussed in Section I.B.3.b. above, small businesses often do not have the kinds of collateral that lenders prefer. This is particularly true in developing countries where often the only collateral acceptable in formal markets is land. The various problems discussed previously in terms of acquiring valid title and of transferring title tend to be borne disproportionately by small businesses. As a result, in keeping with the above discussion, these enterprises often turn to informal credit markets where lenders are willing to accept a broader range of collateral. A study of lending practices in Indian villages (Swaninathan, (1991)), for example, found that while formal credit market lenders would accept only gold and "immovable" collateral like land, informal market lenders were willing to accept a wide range of "movable" collateral - e.g., jewelry, brass vessels, household goods, etc.

That said, however, it is important not to misinterpret the apparently high collateral requirements often found on loans to small businesses. The problems of "lumpy" collateral and of collateral valuation in developing countries will generally lead to an over-statement of the true collateral requirements on these loans.

As noted in the previous chapter, collateral is not often a crucial part of the lending decision. More typically, as in the cases of FUNDES and the South African Small Business Development Corporation, the borrower's proposed use of the funds is evaluated and third party guarantees considered before the lending decision is made. Then, for added security, the lender takes as collateral whatever the borrower can offer.

The evidence from A.I.D.'s PRE/I guarantee program (see Table 1) shows a high degree of variation in the collateral-to-loan ratios on various loans both within and across countries. Such variation is consistent with this view that the lenders simply take whatever collateral is available to support a given loan.

B. Collateral as a Tool to Minimize Risk and Increase Credit to Small Businesses

As described above, although the theory is somewhat inconclusive, the empirical evidence confirms the conventional view of bankers that the ability to pledge collateral allows borrowers who are perceived to be less credit-worthy, such as small businesses, to obtain

loans from which they would otherwise be precluded. Indeed, due to the perceived risk of lending to small businesses and to the difficulty in obtaining any significant liquidation value from the business's property in the event of default, banks often require these borrowers to pledge personal property as collateral.

Some theoretical or empirical work has argued that, in some cases, under-valued collateral and extremely high interest rates are used in a lending process designed to lead to the lender's acquisition of the collateral. It has been argued that this lending procedure has been used in some informal credit markets, particularly in backward rural areas. (Bhaduri (1977) and Basu (1984)) This kind of lending/borrowing behavior could only exist, however, in markets with little or no competition among lenders. Bankers generally do not wish to acquire ownership of collateral so that they can become farmers or coffee producers, or go into some other business. In organized credit markets, there are easier ways to pursue these goals if the bank has them. This kind of lending philosophy seems more plausible in informal markets where perhaps a large landholder lends to a smaller landholder in the hope of acquiring additional acreage.

C. Advantages and Disadvantages of Collateral Requirements

As was highlighted in Section I, collateral is just one of several important aspects of the lending decision. Its role is an essentially subordinate one. When all else fails, the bank can hope to turn to its claim on collateral as a means of covering or at least mitigating its losses. In this sense, collateral can reduce the expected losses from a risky loan, and this is its main advantage. It serves this role best when active secondary markets exist and its liquidation value can be predicted with some degree of certainty. Even when this is not the case, it is often easier to accurately value assets pledged as collateral than to value expected future cash flows or other intangibles such as the borrower's character. Nonetheless, the uncertainties inherent in the valuation of most forms of collateral and in the ability to gain control of it at the time of default make collateral only a highly imperfect safety net for lenders. The term collateral-based lending is, therefore, somewhat misleading, and we have tried to avoid it here, because the lending decision is generally not based solely on

considerations of collateral. Rather, pledged collateral should be considered as just one part of the lending decision.

Even with these shortcomings, collateral provides an added degree of flexibility for both the less obviously credit-worthy borrower and the risk-averse lender. The nature of small business lending makes flexibility particularly important. Small businesses are often considered riskier by lenders. They also are less likely to provide sufficient information to encourage faith in forecasted future cash flows or other types of financial analysis. Collateral can be used to mitigate these concerns of the lender. From the borrower's perspective, the ability to pledge collateral allows them to borrow at lower rates and increases the likelihood of using a loan profitably.

D. Alternative Forms of Lending

Although collateral can be important in increasing the amount of lending to small businesses, the informational problems described in the preceding paragraph coupled with the higher per dollar transaction costs associated with small loans clearly put small businesses at a disadvantage in the credit markets. They bear the brunt of the market's inefficiencies. Recognition of this characteristic of credit markets has provided the justification for intervention in the form of government or international agency guarantees and other policies to aid small businesses in their quest for borrowed funds. They have also provided the impetus for credit market participants to develop alternative forms of finance. Some of these alternatives are discussed below.

- **Asset-Based Lending**

In the United States, as discussed in Section I.A.3. above, small businesses have often had success in obtaining funds from non-bank financial companies that specialize in **asset-based lending**. These companies are willing to overlook obvious financial statement weaknesses and to accept as collateral assets that traditional bank lenders would not even consider. They are willing to do this in part because they charge higher rates for their funds, and, in part, because they take a much more active role in managing their exposure to risk. They typically know, for example, much more than bank lenders do about the

particular borrower and the borrower's business. This allows them to better evaluate the borrower's current and future prospects and to more accurately appraise the value of pledged collateral. Once the loan is made, asset-based lenders spend substantial time and effort monitoring the borrower's cash flows and the condition and value of the collateral.

In developing countries, the formal credit markets are not as deep as those in the United States. As a result the role of the asset-based lender is often filled by the informal credit markets because they are in a better position than bank lenders to knowledgeably evaluate collateral and the borrower's ability to re-pay the loan. Furthermore, because these countries do not have the equivalent of a Uniform Commercial Code, the local money lender is also in a better position to gain control of collateral and to ensure that it has not been pledged to multiple lenders. As a result of these advantages over formal sector lenders, informal sector lenders continue to supply a substantial amount of small business credit in developing countries. Although their rates tend to be high, they, like asset-based lenders in developed countries, are the lender of last resort for small businesses.

- **Lending Cooperatives**

One innovative strategy that has seen some success in developing countries attempts to exploit some of the advantages of the informal credit sector in less developed financial markets by aiding the development of lending cooperatives. (Braverman and Guasch (1989)) Lending cooperatives of various natures have been successful in Nicaragua, Korea, Kenya, Bangladesh, and Zimbabwe. Although each of these cooperative arrangements was structured differently, the successful ones shared several common features: "(i) no new loans were to be given until old loans were repaid, indicating that intertemporal linking of loans is an effective way to induce compliance, (ii) strict auditing and accounting procedures, suggesting the value of monitoring technologies in inducing the desired behavior, and (iii) some form of joint responsibility or liability by small groups of farmers, whereby default of one of the members would imply the cancellation of any future loans to the whole group." (Braverman and Guasch (1989), p. 17)

The key here, as well as in other successful development lending programs, is that clear economic incentives exist to encourage repayment and participation. Moreover, they

interfere as little as possible with the traditions and culture of the region in which they are implemented. To gauge their success, consider the case of the Grameen Bank in Bangladesh - a cooperative lending program. The bank was repaid in full on 98% of its loans to farmers and rural small businesses. This repayment rate contrasts dramatically with the 10% repayment rate on loans from international and state development agencies to similar borrowers. (Braverman and Guasch (1989), p. 16) Clearly, incentives, peer pressure, and local management are important to a successful program.

- **Venture Capital**

A recent study for the Organization for Economic Cooperation and Development (Wellons, Germidis, and Glavans, (1986)) argues that an important missing source of capital in most developing countries is direct investment - i.e., investment in equity. The study recommends that policy initiatives be established to encourage equity-type financing of small businesses. In an important sense, this is simply the next step, after asset-based lending, toward greater involvement of the creditor in the borrower's business. Venture capitalists and other sorts of specialized institutions could be established in ways that could minimize the bureaucratic difficulties, described above, that arise in the relationship between a lender and a borrower. As part owner, for example, claims on collateral and gaining control of collateral would no longer be an issue. In addition, venture capitalists would presumably become specialists in certain industries. This would reduce the problems that arise from the lack of information about a borrower's plans and capacity to carry them out.

Some internationally-oriented development groups such as DEG have encouraged venture capitalist activities in developing countries. DEG's financial services include, among other services, taking equity holdings in companies in developing countries. A prerequisite for DEG's involvement, however, is the presence of a German or European Community financial and "know-how" partner. Although DEG's services are not directed specifically to small business, they do provide evidence of interest in direct foreign capital investments in developing countries.

III. Relationship between Collateral Requirements and Other Forms of Security

A. Collateral Compared to Other Forms of Security

Other forms of security such as guarantees and letters of credit are generally treated in the same way as collateral. The only difference is that the lender's concerns are about the quality of the guarantor rather than of the collateral. Irrevocable letters of credit from internationally recognized banks or other well-known public or private institutions are, therefore, clearly preferred by lenders over the usual collateral such as liens on assets. Such letters, of course, are the exception rather than the rule.

Loan guarantees of the form provided by A.I.D. and other guarantors, in general, promise to absorb something less than 100% (50 percent in the case of A.I.D. guarantees) of any losses incurred on the guaranteed loan. Losses are, of course, measured after any value is reclaimed through the lender's claim on collateral. Although the guarantee reduces the lender's expected loss on any loan by 50 percent, it does not reduce at all the amount of collateral necessary to ensure a zero expected loss.

EXAMPLE: A bank makes a $50,000 loan to a small business. The bank requires $75,000 in collateral because it believes its liquidation value to be just $50,000. If the borrower defaults on the entire loan amount, the lender takes the collateral. If the lender is lucky, the collateral is still worth $50,000 and losses are averted.
Now suppose the lender receives a 50% guarantee from USAID. If the lender reduces the collateral requirement by 50% to $37,500 ($25,000 liquidation value), a default on the entire loan will cost the bank $12,500 and USAID $12,500. That is, the bank recoups $25,000 of the $50,000 loan loss through the claim on collateral and $12,500 from the 50% guarantee. The only way the bank can "ensure" zero losses is to continue to require collateral with liquidation value equal to the size of the loan.

In this way, the guarantee program provides an increased incentive to lenders to make small business loans without creating any strong disincentive effects such as removing the incentive to monitor the riskiness of borrowers. The increased incentives are just as likely to be seen in increased access to credit for riskier borrowers and in improved loan terms such

as lower interest rates and fees than in reduced collateral requirements. It is important to recognize, as discussed above, that collateral serves not just to secure a loan but to improve the lender's bargaining position in the event of a partial default - i.e., to encourage the borrower to pay and reduce the likelihood of moral hazard.

B. Regional Guarantee Programs

1. United States Small Business Administration Program

In the United States, the Small Business Administration (SBA) has provided the majority of its support for small businesses through its 7(a) loan guarantee program. Through this program, small businesses can obtain bank loans that must be approved both by the lending bank and by the SBA. The attractive feature for the bank is the 80-to-90% guarantee provided by the SBA. An added feature is the increasingly active secondary market in SBA guaranteed loans. The cost to the bank is the increased administrative work the guarantees require. Indeed, banks with a relatively high volume of SBA guaranteed loans typically make large commitments in staffing and technology to handle them. Nonetheless, many of these banks have found them profitable. (Green (1989))

The small business borrowers seeking these loans, however, may be put off by the high collateral requirements and high costs of obtaining the guaranteed loans. Costs are generally high because of the SBA guarantee fees and the relatively involved paper work (e.g., business plans, projections, financial statements, etc.) necessary for a successful application. In addition, applicants are often encouraged to generate 30% equity financing. (Broome (1992)) Recently, access to this and other SBA programs has been limited due to funding difficulties.

2. Loan Guarantee Programs in Developing Countries

Levitsky and Prasad (1987) have conducted an extensive study of loan guarantee programs throughout both the developed and the developing world. As they indicate, such schemes would ideally provide guarantees "for credit-worthy clients with good projects who are unable to obtain loans because they cannot satisfy the lender's requirement for collateral." (p. 2) They found, however, in their case studies that in practice the schemes'

results fell far from this ideal. In many cases, participation rates in the guarantee schemes were low and collateral requirements were often not significantly reduced in the presence of a guarantee. They found in practice, what we have discussed in theory, that "banks tend to regard collateral chiefly as a means of exerting pressure on the borrower to make maximum efforts to repay." (p. 3)

According to Levitsky and Prasad (p. 12), it is also true that the problems associated with loan guarantee programs in developed countries tend to differ from those associated with these programs in developing countries. In developed countries such as the United States, the United Kingdom, and the Netherlands, a major concern is that banks will shift risky loans that are already in their portfolios into the guarantee program. In contrast, the major concern in developing countries is how to get commercial banks to participate in the programs in the first place.

How banks view a particular guarantee scheme will depend on, among other things, the degree of risk sharing. Levitsky and Prasad find evidence that because most lending institutions are by nature risk-averse, they are often reluctant to participate in schemes that leave them exposed to 30% or more of the risk. With this degree of exposure, the institutions are generally able to follow normal processes of appraisal and obtaining collateral and, therefore, often do not consider the benefits of the guarantee sufficient to justify adherence to the formalities necessary to obtain it. Levitsky and Prasad's study provided some indication that in cases where the lending institution is bearing more than 30% of the risk, it is less interested in typical guarantee schemes because of the time and effort involved in obtaining and appraising collateral to cover its portion of the risk. Overall, banks in developing countries have been somewhat reluctant to participate in guarantee schemes usually for one or more of the following reasons (Levitsky and Prasad (1987) p. 5):

(i) lack of confidence in the guarantor's ability or willingness to meet their claims;

(ii) fear that they will encounter considerable delays and costly administrative work in pursuing their claims;

(iii) concern that any increase in defaults (even when those defaults are covered by a guarantee) is indicative of poor banking practices; and

(iv) a general preference for more conservative lending practices.

Levitsky and Prasad describe many guarantee schemes that have failed for one or more of these reasons. Listing a few of their examples will illustrate the point. The Industrial Development Fund funded by the domestic government of Haiti was never widely utilized because banks feared a long wait for funds when they tried to avail themselves of the guarantee on a defaulted loan. They also argued that they still needed collateral because the guarantee was not 100% and did not cover interest.

Similar concerns about delays were prevalent for guarantee schemes in use in Cameroon, where waiting periods of up to 6 months for approval of the guarantee and up to four years for reimbursement on a claim were not uncommon. In the Philippines, the Industrial Guarantee and Loan Fund ran into problems due to bureaucratic delays as well as a lack of faith in the central bank's willingness to accept reasonable documentation of losses. Complex application processes and concerns that they were being forced to make loans that were too risky caused lenders in Jamaica and Barbados to avoid the programs available in those countries.

In general, an established record of reimbursement and relatively low costs to participate are essential to an effective guarantee program, as is a willingness to let the participating lenders conduct their business as they deem appropriate for their circumstances. These goals can best be accomplished by handling claims quickly and fairly with a minimum of paperwork and other transactions costs, and by sharing a sufficient amount of the risk without charging excessive fees.

3. The Issue of "Additionality"

Levitsky and Prasad (p. 11) also argue that several schemes, most often in developed countries (e.g., France, Japan, and Germany), have been successful in increasing "the amounts available for business start-ups by individuals who lacked collateral and any record of credit worthiness. These schemes have been particularly helpful in providing long-term lending to small businesses." This question of "additionality of lending" (i.e., more lending to small businesses than would have occurred without the guarantee scheme) is the key

measure of success for any guarantee scheme. Additionality will most likely occur when collateral requirements are reduced but may occur even if they are not. Indeed, Levitsky and Prasad argue that it is "desirable that lending institutions avail themselves of whatever collateral borrowers can provide [even to support a guaranteed loan] since this will ultimately ease loan recoveries." (p. 11) This view is shared by FUNDES, which has found that banks should accept whatever collateral is available.

Looking solely at collateral requirements, therefore, is not a sufficient means to evaluate the success of a guarantee scheme in creating additional lending. Indeed, FUNDES has found that about 90% of their guaranteed loans would not have been made without the guarantees. In general though, proving "additionality" has been a difficult task for those who have attempted to evaluate the success of these schemes. The difficulty lies in distinguishing between loans that would not have been made without the third-party guarantee and those that would have been made any way but are placed in the guarantee program solely to reduce the bank's exposure to risk. This distinction is nearly impossible to make without an almost intimate knowledge of the banks and the loans in question. As a result, the literature contains no decisive empirical study on the issue.

Several steps, however, can be taken to prevent the misuse of the guarantee program by participating banks. First, the guarantor can charge a non-trivial, market-based fee for the guarantee. This will discourage the frivolous use of the program. Second, the guarantor can keep its share of the risk well below 100%. This will discourage the use of the program as a haven for risky loans to which the participating banks are already committed. Other less subtle methods have been used to encourage additionality. The SBA guarantee program, for example, requires the borrower to have been refused in at least one attempt to obtain credit without the SBA's guarantee. (Owens (1989))

In spite of these problems, Levitsky and Prasad (p. 13) conclude that credit guarantee programs help small enterprise development in developing countries. These programs,

> however, only have meaning to the extent that the commercial banking system is ready to participate in [them] . . . [Moreover,] credit guarantee schemes cannot and should not completely absolve banks from taking a normal level of risk as such risk-taking is acceptable banking practice. Similarly, credit guarantee schemes should not be expected to provide finance for projects of doubtful viability . . . [, and they]

should not eliminate the need for the lender, where possible, to obtain some form of personal guarantee or collateral.

4. Guarantee and Similar Programs for Microenterprises

Evidence from programs designed primarily to assist "microenterprises" have also had mixed success. According to A.I.D.'s Small Enterprise Office, at the very smallest loan size levels ($100 - $500), co-guarantee schemes, in which loans to individuals within a specified group are guaranteed by the group as a whole with no further loans made available until these loans are repaid, have been quite successful. Larger loans ($1000 and up), however, made without collateral support have not worked well. For these larger loans, programs (such as the ADEMI program in the Dominican Republic) that take "whatever collateral is available," regardless of its value to the lender, have worked better. (This policy of taking whatever collateral is available appears to be standard operating procedure. Both the DEG and the South African Small Business Development Corporation follow the same type of procedure.) The key here appears to be the aspect of control that the claim on collateral gives the lender over the borrower.

In one Indonesian program, borrowers are required to show that they have paid taxes on their property (however small that property might be). To do this, they present the title to that property to the lender who holds it until the loan is repaid. Although Indonesian law will not let the lender take the property under any circumstance, the holding of the title prevents the borrower from using it to borrow elsewhere. (The 'chonse' scheme used in Korea worked on a similar principal. (Renaud, (1989)) This has been a successful means of encouraging loan repayment. In a loose sense, it is a way of doing some of what the Uniform Commercial Code does in the United States in terms of collateral perfection.

IV. Future Trends in the Use of Collateral in Lending

A. Overview of Recent Crises in International Banking

International banking has seen a number of dramatic changes in the last decade. The international debt crisis beginning in 1982 with Mexico's default on its loan payments, followed by the savings and loan crisis in the United States, and, in partial response to these crises, the International Banking Commission's risk-based capital requirements have all had profound effects on the international banking community. In this section, some of the implications of these changes for small business lending, collateral requirements, and lending in developing countries are considered.

1. The International Debt Crisis

By the beginning of 1991, the external debt of developing countries had reached $1.34 trillion, twice the level of a decade earlier. The largest annual increases in developing country debt in the decade occurred between 1980 and 1985. From 1986 onward, the total debt expanded much more slowly, and the increases were mainly due to the capitalization of interest rather than to advances of new principal to highly indebted countries. Nonetheless, arrears of developing countries on their interest payments, although concentrated in a few countries, have risen substantially over the recent past.

The decline in the rate of expansion of developing country debt is largely due to a concentrated effort by United States commercial banks to reduce their exposure in developing countries. Indeed, United States banks had fewer cross-border claims in 1991 than they had in 1983. This effort is explained in large part by the increased arrears and the declining value of developing country debt in secondary markets.

The developing countries most severely affected by the debt crisis are what are termed by the World Bank to be "Severely Indebted Middle-Income" countries (e.g., Brazil, Mexico, Venezuela) and "Severely Indebted Low-Income Countries" (e.g., most of Sub-Saharan Africa). In these countries, a growing portion of the debt has become "officialized" to the detriment of private sector debtors. "Officialization" results when private borrowers make payments on their debts in domestic currency, but foreign exchange

problems or disputes about appropriate exchange rates leave the ultimate creditor (often a United States commercial bank) unpaid. Such difficulties clearly increase the reluctance of private lenders to resume or increase their credit activities in these highly indebted countries.

The net result of the international debt crisis has, therefore, been a reduction in the rate at which developing countries can expect to receive capital inflows from abroad. Everything else equal, this will reduce the overall supply of credit in these countries and, as basic supply and demand analysis would suggest, raise interest rates. To the extent that interest rates do not adjust perfectly to market conditions, one might also expect less credit-worthy borrowers to see a reduction in the amount of credit available to them at interest rates they can reasonably afford. The survey respondents generally confirmed this by indicating that the international debt crisis has caused them to be somewhat more cautious in their lending activities. One way to be more cautious is to increase the portion of loans made on a secured basis and to increase the amount of collateral required to secure a given loan.

2. Risk-Based Capital Requirements

On July 15, 1988, the Central Bankers from the Group of Ten countries agreed to an international convergence of supervisory regulations governing the capital adequacy of banks. Formally entitled the "International Convergence of Capital Measurement and Capital Standards," the agreement has come to be known as the Basle Accord. The agreement provides a standard definition of what constitutes bank capital and establishes minimum capital requirements for banks. Of key importance is the fact that the amount of capital required depends, at least to some degree, on the riskiness of the bank's assets.

The current system of capital standards, though there are differences across countries, sets a minimum capital requirement as a percentage of total assets. Although the definition of capital also differs across countries and is often somewhat loose, it is generally taken to mean owners' equity. The reason for setting capital requirements is to ensure that bank owners have some of their own money at stake when making decisions about loans and investments. In other words, capital requirements are an attempt to reduce the moral hazard problem associated with investing other people's (namely depositors') money. The risk-based capital requirements of the Basle Accord, which will become official at the end of

1992, should improve the ability of capital regulation to fulfill this goal.

The two major elements of the Basle Accord are:

(i) the provision of a standardized, internationally accepted definition of bank capital, and

(ii) the setting of capital requirements that depend on the degree of risk associated with a bank's assets.

Without going into specifics, the Accord's capital requirement on relatively low-risk assets, such as U.S. Treasury securities, is a much smaller percentage of the assets' value than the requirement for loans to a small business (unless the loan is collateralized by cash).

The effect of the Accord on commercial banks in participating countries (and these are not limited to the G-10, as many others have indicated that they will adhere to the standards set by the Accord) is to lower the cost of investing in Treasuries and other less risky assets relative to the cost of making loans. In other words, banks can reduce the amount of capital they are required to hold by shifting assets from loans to Treasury securities. As a result, the spread between the banks' loan rate and the rate it can earn on Treasuries is likely to widen as they require a greater financial incentive to make the more capital intensive loans. This, of course, is likely to make accessing credit more difficult for small businesses.

In developing countries that do not adhere to the Accord, the effects will be less direct. Nonetheless, if banks in developed countries reduce their commercial lending operations in general, some of that reduction will lead to reduced lending in developing countries. Coupled with the effects of the international debt crisis, this could have significant effects on the availability of credit in these countries. No doubt small businesses in developing countries would find their access to loans limited as a result.

3. The United States Savings and Loan Crisis

The savings and loan failures during the 1980s and early 1990s will cost United States taxpayers something in excess (perhaps well in excess) of $125 billion in payments to cover the insured (and often uninsured) deposits. These failures and the resulting costs are due to a combination of poor policy choices, institutionalized disincentives, and poor judgment.

At the most fundamental level, the crisis is the result of moral hazard and adverse selection writ large. Deposit insurance, which effectively covers all deposits, provides no incentive for depositors to monitor the risk-taking behavior of the savings and loans. Regulatory agencies, which were supposed to assume this risk-monitoring role, were under staffed and unable to fulfill their responsibilities. Partial deregulation, particularly in the form of easing the requirements to charter a new savings and loan and in broadening the range of assets in which savings and loans could invest, led to a substantial increase in the number of savings and loans. With no one to monitor their risk-taking behavior, savings and loans had every incentive to make high-risk loans at high interest rates and with high fees. If the loans were repaid, the savings and loans would profit handsomely. If they were not repaid, a substantial portion of the losses would be passed on to the taxpayer - moral hazard. The problem was exacerbated by the relaxed chartering requirements which allowed those most likely to abuse the system to have relatively easy access to it - adverse selection.

In the aftermath of these losses, regulators have strengthened their supervisory role and banks have been forced to become more conservative in their lending practices. While this may be for the better, it has led to what many perceive to be a "crunch" in United States credit markets. Small business loans, which are often considered more risky and more expensive to administer, are likely to bear a substantial portion of the reduction in credit availability. How this crisis will affect small business lending in other countries is, however, unclear. It is unlikely that there would be any direct impact. Nonetheless, many countries (e.g., Colombia, India, Kenya, the Philippines, Trinidad and Tobago, Turkey, and Venezuela) have explicit deposit insurance schemes, and others (e.g., Australia and Italy) have revealed implicit insurance schemes by stepping in to pay-off depositors when major bank failures have occurred. If these countries take note of the recent United States experience, they too might strengthen their regulation of bank lending and, in doing so, unintentionally limit the availability of credit to small businesses.

B. Implications for the Use of Collateral for Small Businesses

Collateral is likely to continue to be an important part of the lending decision particularly for loans to small businesses. As was discussed at the outset, these businesses

are often not in a position to provide the strong financial statements required to obtain unsecured loans. Moreover, they are often not in a position to pledge the relatively safe, easily monitored collateral that many banks now require. Therefore, to the extent that small businesses are likely to remain a vital part of any economy, whether developed or developing, nonbank financial companies are likely to continue to play an important role in meeting their credit needs.

In developing countries, where much small business lending is conducted in the informal sector of the credit markets, increased development of the formal credit sector, improved record keeping by small business, and the general increase in the level of education, all of which should be expected to come with the development process, are likely to make such lending more attractive to banks. In other words, as was the case in the United States in the first part of this century, banks in developing countries are likely to pursue a growing portion of the small business borrowers currently financed by lenders in the informal credit markets. Meanwhile, in developed countries, the recent re-emergence of asset-based lenders who exploit their specialized knowledge of particular industries is likely to continue. Such innovative financing methods that reduce risk to manageable levels for lenders are essential if small and other less credit-worthy but important businesses are to satisfy their credit needs in order to grow to their full potential.

The changes in developing countries will occur more quickly, to the benefit of small borrowers, if financial legalization and legal reform move relatively quickly. Such straight-forward changes as:

- official titling of unregistered land;
- assistance in the form of improved advisory services to banks and to small business borrowers;
- improved training of bank personnel to better appraise projects; and
- greater acceptance of pooled collateral;

would help to reduce the collateral typically required of small business borrowers. Pooled collateral, in particular, has seen substantial success in the Grameen Bank in Bangladesh, Banco Sol in Bolivia, the Bedan Kredit Kecamatan in Indonesia, the credit unions or cooperatives in Cameroon, and in Nigeria's Savannah Bank. (Sub-Saharan Africa (1989))

Although these institutions typically support very small borrowers, they are more likely to be successful than the more grand-scale interventions in the credit markets that have often been followed in developing countries. The World Bank, for example, concludes in a report on the crisis in African development that attempts to reduce financing costs to small and medium-scale enterprises (SMEs) through interest rate ceilings and directed credit:

> [h]ave largely failed because they do not address the more critical problem of improving access. Publicly managed development finance institutions . . . have proven either unable or unwilling to recover debts. Access to credit for SMEs will be more sustainable through commercial banks that are permitted to charge interest rates that reflect the real cost and risks of small-scale lending. (Sub-Saharan Africa (1989), p. 144)

V. Conclusions from the Literature

- Theory, empirical evidence, and conventional banking wisdom argue that collateral is required when borrowers are considered to be relatively less credit-worthy.
- High collateral-to-loan value ratios are often more apparent than real because they reflect lenders taking into account the fact that borrowers will more likely default under poor economic circumstances when the value of their collateral is lower. Moreover, legal and practical problems of monitoring the collateral and gaining control of it at the time of default can be quite significant and costly.
- Even with the collateral, less credit-worthy borrowers tend to cause banks to sustain more losses than their more credit-worthy counterparts who are able to borrow unsecured loans.
- Small businesses are generally considered to be less obviously credit-worthy borrowers and are, therefore, generally required to pledge collateral to obtain credit.
- Without collateral to satisfy the bank, small businesses would be excluded from receiving bank credit and would have to seek credit elsewhere - typically from nonbank finance companies in developed countries and from their equivalent in the informal credit markets of developing countries. They are likely to pay significantly higher rates to these credit sources.
- Credit guarantee programs have had mixed success in improving the availability of bank credit to small businesses in developing countries. Often they have not been successful in reducing collateral requirements or increasing access to small business borrowers. The reasons for the lack of success include: distrust of the guarantor; excessive delays in receiving reimbursement from the guarantor; excessive paper work and other transaction costs necessary to receive the guarantee.
- Successful programs are likely to be those that are least invasive to the workings of the credit markets in the local economy, while still increasing the

incentive to make loans to small businesses. Guarantee programs with moderate risk sharing, relatively low fees and transactions costs, and a trusted sponsor are among those most likely to experience success.

- USAID's PRE/I guarantee program seems to meet the criteria for a successful guarantee program. Moreover, evidence presented in Tables 1 and 2 concerning the collateral-to-loan ratios for loans made with these guarantees do show the ratios to be, on average, lower relative to typical collateral requirements for secured loans in the United States or for those loans made by banks working with development corporations like Germany's DEG and South Africa's Small Business Development Corporation. This evidence, along with the fact that some of the banks that are making small business loans under the program were not making them without the program, suggests that the program is having some success in improving access to credit for small borrowers.
- Other programs such as credit cooperatives have also been successful especially in improving credit terms and availability in the informal sectors of the credit markets.
- The success or failure of a loan guarantee program should not be judged solely on its effect on the amount of collateral required. Rather, a full examination of the borrowers obtaining credit under the program compared to those who would have received it without the program is necessary. Banks may, for example, accept a broader range of collateral or more risky loan applicants when the guarantee is provided than they would without the guarantee, and it is typically the case that the bank will accept whatever collateral the borrower has even when the loan has a guarantor.
- To obtain more reliable information about the effects of a particular guarantee program's effect on access to credit, participating bankers and their borrowers would have to be questioned directly and probably rather intensely. The collection of this type of empirical data is beyond the scope of this study and would require work in the field.

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In addition to written sources, we have benefited from a number of conversations and FAX communications with knowledgeable individuals. They include:

Mr. C. de Haan, Head: Development Financing, Kleinsake-Ontwikkelingskorporasie Beperk (Small Eusiness Development Corporations Limited), South Africa. (April 21, 1992, FAX)

Mr. David Hilton, Vice President, Bank of Nova Scotia, Canada. (May 4, 1992, telephone interview)

Mr. K. H. Kolz and Mr. H.P. Blume, Directors, DEG - Deutsche Investitions- und Entwicklungsgesellschaft, Germany. (April 22, 1992, FAX)

Mr. Martin Murtfeld, Financial Institutions (Head Office), Deutsche Bank AG, Germany. (January 29, 1992, FAX)

Mr. Eckart Oehring, Director, FUNDES, Switzerland. (April 24, 1992, telephone interview)

Ms. Elizabeth Ryne, Economist, Microenterprise Office, USAID. (April 13, 1992, telephone interview)

Mr. Carlos Santistevan, Treasurer, Inter-American Development Bank, (formerly Executive Director Libra Bank, London), Washington, D.C. (May 5, 1992, telephone interview)

Appendix 1

Results of an Informal Survey of Developing Country Lenders

In an attempt to gain some insight into the effects of guarantee programs on lending to small businesses in developing countries, we conducted an informal, non-scientific survey. Our sample consists of individuals who are in a position to know something about bank lending policies and whom we could reasonably expect to respond to a questionnaire. With these criteria, we were limited to individuals we knew either first or second hand or whom we could question directly at conferences or seminars. As a result, we can make no claims that our sample is representative nor necessarily reflective of lending practices in general.

The relative over-representation of Latin American and African respondents both reflects the limited nature of our contacts and the potential bias in the results. Nonetheless, with the relative paucity of information in the literature on lending policies to small businesses in developing countries and without the resources to conduct a scientific survey or thorough field work, this information might provide some valuable perspective to the conclusions drawn from the literature.

The respondents included central and private commercial bankers from the following countries: Guyana, Dominican Republic, Uruguay, Ecuador, Bolivia, Costa Rica, Mexico, Paraguay, Bahamas, Venezuela, Botswana, Nigeria, Guinea, Algeria, Western Samoa, and Oman.

The interpretations of the results are as follows:

- About half of the respondents believed small businesses loans to riskier or more expensive to administer than larger enterprises. This is consistent with the general view expressed in the literature. It argues that without some off-setting factors, such as collateral or a guarantee, small businesses would receive fewer loans or pay higher interest rates.

- Although the literature contains ample evidence of directed credit policies such as minimum lending requirements to preferred groups of borrowers, such policies are not universal. None of the 16 countries represented in the table has a minimum lending requirement for small businesses. This evidence might reflect the increasing financial liberalization of the last few years.

- Collateral-to-loan ratios for secured loans to small businesses are typically 100% or greater and sometimes much greater. To the extent that these estimates can be trusted, they suggest that the USAID's PRE/I loan guarantee program is successful in reducing collateral requirements. That is, comparing these ratios to the average ratios in Table 2 for loans in the PRE/I program shows that on average the guaranteed loans have less collateral support.

- The previous interpretation is supported by the fact that 15 of the 21 respondents said that a guarantee from an internationally recognized guarantor would cause them to reduce their collateral-to-loan ratio.

- Overall, though no firm conclusions should be drawn from this scant and informal evidence, it is roughly consistent with the conclusions drawn from the literature.

TABLE 1: LOAN SIZE AND COLLATERAL FOR A.I.D. BUREAU FOR PRIVATE ENTERPRISE SMALL BUSINESS LOAN PORTFOLIO GUARANTEE BY REGION

Region	Country	Bank	# of Loans	Average Loan Size (US$)	Average Collateral
AFR (1)					
	Botswana (2)	Bank of Credit and Commerce Int'l	4	20,658	134%
	Botswana (2)	Standard Chartered Bank of Botswana	10	26,994	125%
	Kenya	Barclays Bank of Kenya	10	45,732	48%
	Kenya	Standard Chartered Bank of Kenya	4	36,940	70%
	Mali	Bank of Africa	24	21,077	100%
	Morocco	Wafabank	4	73,939	50%
	Nigeria	Chartered Bank Limited	4	37,044	100%
	Nigeria	Meridien Equity Bank of Nigeria Limited	3	46,535	50%
		TOTAL FOR AFR	**63**	**32,493**	**91%**

Notes: (1) The following banks were omitted from the table due to inadequate information on collateral: Barclays Bank of Botswana (58 loans, average size $12,374), Wafabail of Morocco (1 loan of 14,727), and Arab Tunisia Bank (2 loans, average size $47,293). Field work would be required to complete information.
(2) Indicates "old style" Loan Guarantee.

TABLE 1: LOAN SIZE AND COLLATERAL FOR A.I.D. BUREAU FOR PRIVATE ENTERPRISE SMALL BUSINESS LOAN PORTFOLIO GUARANTEE BY REGION

Region	Country	Bank	# of Loans	Average Loan Size (US$)	Average Collateral
ASIA (1)					
	Indonesia	Bank Bali	13	81,048	143%
	Indonesia	Bank Niaga	28	97,557	109%
	Indonesia	Pan Indonesia Bank	9	93,799	114%
	Pakistan	Pakistan Indus. Comm. Leasing	7	22,154	0%
	Philippines	Mercator Finance Corp.	2	19,484	65%
	Philippines	Philippine Comm. Int'l Bank	2	19,836	0%
	Philippines	Planters Development Bank	9	83,129	91%
	Philippines	SolidBank	14	12,617	38%
	Sri Lanka	Finance Company	20	6,666	120%
	Sri Lanka	Hatton National Bank	122	1,989	100%
	Sri Lanka	Sampath	155	2,477	100%
		TOTAL FOR ASIA	**381**	**49,147**	**96%**

Notes: (1) The following banks were omitted from the table due to inadequate information on collateral: Bank Niaga of Indonesia (42 loans, average loan size $108,878), and FEBII of the Philippines (66 loans, average loan size $115,217). Field would be required to complete information.

TABLE 1: LOAN SIZE AND COLLATERAL FOR A.I.D. BUREAU FOR PRIVATE ENTERPRISE SMALL BUSINESS LOAN PORTFOLIO GUARANTEE BY REGION

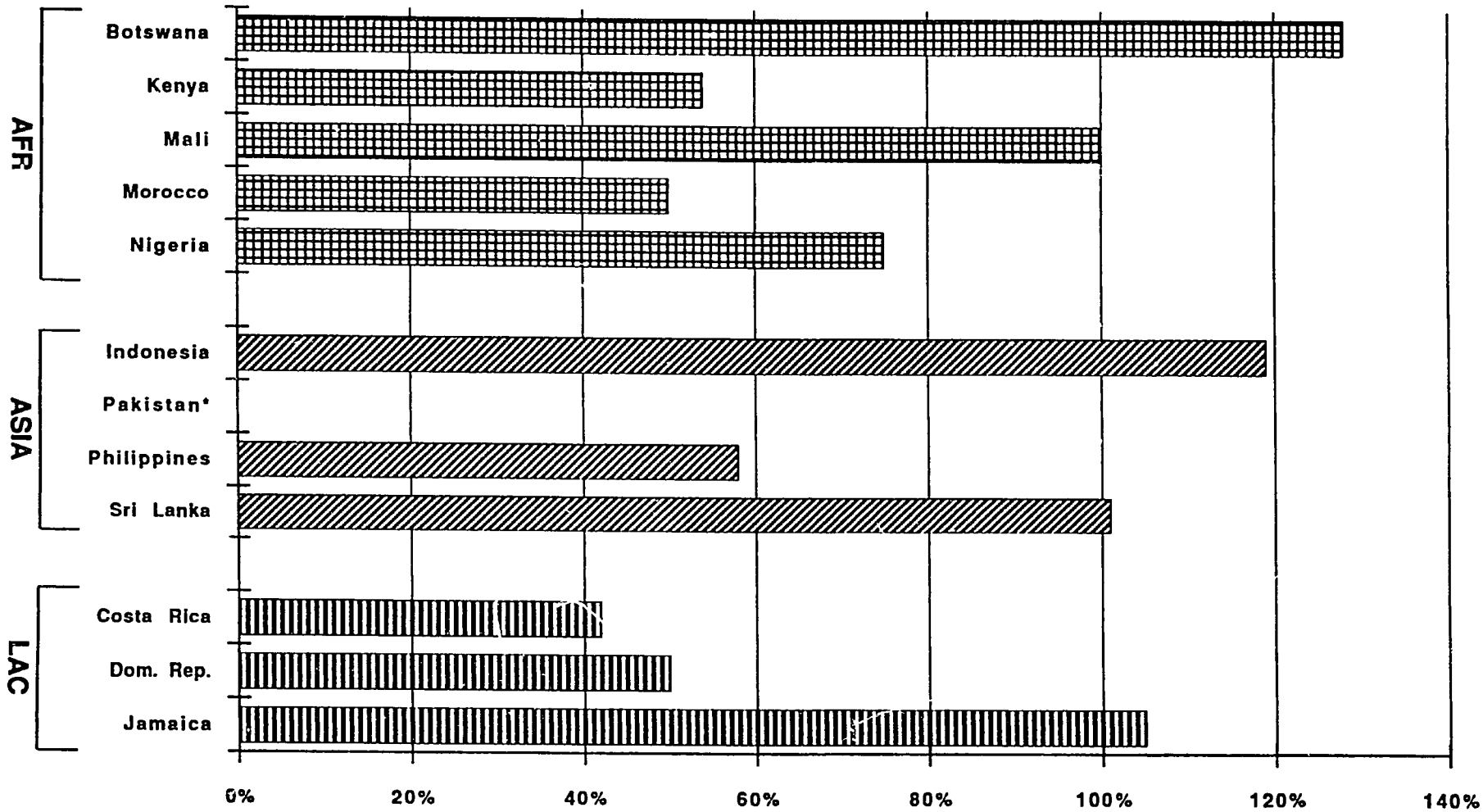
Region	Country	Bank	# of Loans	Average Loan Size (US$)	Average Collateral
LAC (1)					
	Costa Rica	Banco de Cofisa	5	85,000	13%
	Costa Rica	Banco del Comercio	35	9,031	50%
	Dominican Republic	Banco de Desarrollo	4	35,147	50%
	Jamaica	Century National Bank	3	37,110	117%
	Jamaica (2)	Century National Bank	2	48,324	115%
	Jamaica	Mutual Security Bank	12	17,778	100%
		LAC TOTAL	**61**	**21,533**	**70%**

Notes: (1) The following banks were omitted from the table due to inadequate information on collateral: Jamaica Citizens Bank (12 loans, average loan size $30,305), Union of Bolivian Banks (including Banco Hipotecario Nacional, S.A.; Banco Industrial y Ganadero del Beni; Banco Nacional de Bolivia, S.A.; Banco de Inversion Boliviano; Banco de La Paz, S.A. Banco Industrial, S.A.; Banco de Santa Cruz de la Sierra; and Banco Boliviano Americano). Field work would be required to complete information.

(2) Indicates ALICO facility.

TOTALS	# of Loans	Average Loan Size (US$)	Average Collateral
Africa	**63**	**32,493**	**91%**
Asia	**381**	**49,147**	**96%**
Latin America and the Caribbean	**61**	**21,533**	**70%**

TABLE 2: COLLATERAL-TO-LOAN RATIOS FOR A.I.D. BUREAU FOR PRIVATE ENTERPRISE SMALL BUSINESS LOAN PORTFOLIO GUARANTEE PROGRAM BY REGION



*Collateral-to-loan ratio for Loan Portfolio Guarantee Program in Pakistan is 0%.