Financial Sector Development Project

CREDIT GUARANTEE SCHEMES FOR DEVELOPING COUNTRIES: THEORY, DESIGN AND EVALUATION

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Abstract

This report discusses the key issues concerning the theory, design and evaluation of credit guarantee schemes implemented to increase bank lending to small and microenterprises and to the agricultural sector in developing countries. Programs in Africa are described and selected schemes in Asia and Latin America are discussed to derive implications for Sub-Saharan Africa. Several unresolved issues regarding credit guarantee programs in developing countries are identified.

PREFACE

The genesis of this paper was a conversation with Mike Unger of the Agency for International Development about possible solutions to the many problems faced by financial institutions in Sub-Saharan Africa. Having just completed a project in which we interviewed bankers and central bank officials in several SSA countries, we noted a great deal of interest in credit guarantee funds, but found they didn't seem to be working very well in the countries visited. With his encouragement and the assistance of J.D.Von Pishke, then of the Barents Group, KPMG, we designed a literature review to assess credit guarantees. The original objective was to look only at the Sub-Saharan Africa experience. The paucity of information available, however, required that we cast the net broader and look at whatever data and information were available for developing countries.

In the process of conducting the study we received valuable encouragement and assistance from Peter Hazell of the International Food Policy Research Institute, Jacob Yaron of the World Bank, and Richard Roberts and his colleagues in FAO Rome. FAO provided funding so we could publish a parallel annotated bibliography based on the publications we collected. We also had the good fortune to meet Mike Gudger who generously shared his vast field experience and personal collection of data about guarantee funds, some of which are reproduced with his permission in this report. J.D.Von Pischke and Dale Adams made extensive and insightful comments on the first draft of this report. We are indebted to Lori Karn for all her creative wordprocessing work on this report.

We acknowledge with great appreciation the assistance of all these persons and institutions. Notwithstanding this assistance, we take responsibility for all errors and shortcomings of this analysis. This report represents our personal views which may not be supported by any of the persons or institutions mentioned.

We would be pleased to receive reactions from readers and recommendations about information and data that we missed that would support or refute our findings.

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CREDIT GUARANTEE SCHEMES FOR DEVELOPING COUNTRIES: THEORY, DESIGN AND EVALUATION

by

Richard L. Meyer and Geetha Nagarajan

I. INTRODUCTION

A. Background

Credit guarantees have been advocated as a means to entice reluctant lenders to lend to clientele and subsectors of interest to governments and donors, such as agriculture, small farmers, women, microenterprises, and the poor. Several assumptions, often unstated, are usually made when guarantees are utilized. First, it is assumed that the targeted borrowers do not have sufficient physical or other collateral normally required by lenders so they are credit rationed by commercial lending institutions. Second, it is assumed that the lenders perceive this clientele to be risky so they will not make a socially desirable amount of loans to them without special inducements. By sharing lending risks through a guarantee, it is expected that the lenders will be willing to make more loans to the credit rationed clients. It is assumed that by offering partial coverage, the funds used to support guarantees are leveraged so more borrowers are benefitted than would occur if the same funds were used for rediscounting targeted loans. Furthermore, there is often an expectation that once they are induced to lend, the lenders will discover that these clientele are really not that risky, so that future loans can be made profitably without guarantees, or at least that the guaranteed borrowers will eventually graduate to nonguaranteed loans.

There are several types of guarantee programs. They are implemented by governments, donors, and NGOs with diverse objectives and designs. An external source often provides the initial capital for the guarantee fund. Recent innovations, based on the concept of mutual credit associations, use group-based savings deposited in a bank account to guarantee loans made to group members. Donors and NGOs sometimes complement the local group-based savings account with a second-tier guarantee that leverages the funds lent. Women's World Banking, for example,

has deposited funds in local banks to leverage the funds deposited by local WWB affiliates in several African countries.

The results of these various types of credit guarantees are not well documented. There is plenty of skepticism by both theorists and practitioners about their performance. Since most crop insurance programs that cover specific insurable risks are subsidized, it is logical to expect that a comprehensive credit guarantee with its severe adverse selection and moral hazard problems would also need to be subsidized. Many skeptics, therefore, conclude that guarantees are simply a form of subsidized credit dressed up in new clothes. On the other hand, many governments, donors, and bankers favor guarantees as a way to induce lending in developing countries.

No comprehensive evaluation of loan guarantee schemes in developing countries has been conducted in recent years. The most ambitious effort was undertaken by Levitsky and Prasad in 1987. They reviewed several schemes designed to stimulate lending to small and medium businesses, including two in Sub-Saharan Africa (Cameroon and Ghana). They concluded that it was difficult to demonstrate that much additional lending could be attributed to the guarantee schemes. They provided some information about the operations of the schemes, but far too little to make a comprehensive assessment.

Subsequent empirical evidence on guarantees has been mixed. Advocates in ACCION International claim that guarantee schemes are a major reason for the expansion that has occurred in microenterprise lending in Latin America. On the other hand, our study of the fruit and vegetable export sub-sector in Sub-Saharan African countries revealed that guarantees were not important for this subsector.[1] Guarantee schemes were having negligible impact in The Gambia, Uganda, and Swaziland. During the 1980s, Nigeria was aggressive in operating a guarantee fund for agricultural lending. The information available is sketchy and dated, but it appears that only a small portion of agricultural lending was covered. There were indications, however, that the enormous bad debts associated with agricultural lending were being passed on to the guarantee

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[1] The study was carried out by The Ohio State University for USAID in the six Sub-Saharan African countries of Ghana, Madagascar, Rwanda, Swaziland, The Gambia and Uganda during 1993-94. The objective was to examine the marketing and financing strategies of exporters of fruits and vegetables and assess the constraints for expanding exports to Europe.

fund and would eventually destroy it. The major government guarantee programs operating in Colombia and Mexico have also experienced difficulties in achieving sustainability.

B. Purpose and Methodology of the Study

The original purpose of this study was to review the guarantee experience in Sub-Saharan Africa (SSA), identify crucial design issues for guarantees, and develop guidelines for designing new schemes and redesigning existing ones. The paucity of data available on SSA experiences required a shift in focus to a wider analysis incorporating experiences from Asia and Latin America for which there was more information. This paper is based on a review of documents for as many schemes as could be identified and for which information could be obtained. Standard library searches were conducted in the Clearinghouse for Documentation and Information Exchange of USAID (CDIE/AID), university libraries, the Food and Agricultural Organization of the United Nations (FAO), the International Food Policy Research Institute (IFPRI), and the World Bank. In addition, we interacted with knowledgeable people by phone, fax, and mail to gain impressions about guarantee programs and obtain data not available in libraries.

Several types of guarantee programs exist. Limited time and resources forced us to exclude from analysis most export guarantees and the myriad of group liability lending schemes used by banks and NGOs in microenterprise programs. We focussed on credit guarantee programs that are implemented by external or third parties, and are intended to increase lending to agriculture and the small, medium, and microenterprise (SME) subsectors.

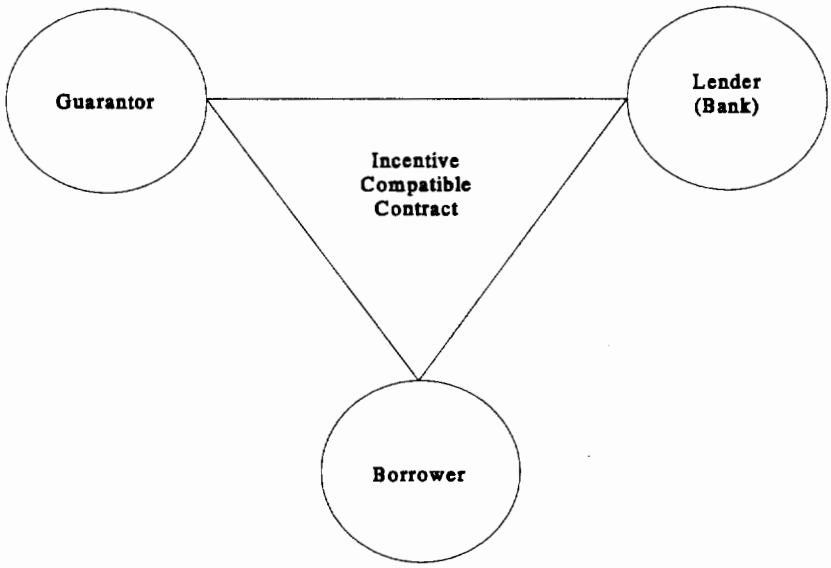
The paper is organized as follows. The next section develops a conceptual framework that outlines the objectives of guarantees, classifies their design, and discusses issues in evaluating guarantee programs. This is followed by an inventory and synthesis of African guarantee programs. Selected guarantee programs from Asia and Latin America are then described to derive implications for Sub-Saharan Africa. A summary that discusses implications for SSA and unresolved issues concludes the paper.

II. CREDIT GUARANTEE SCHEMES: DEFINITION, OBJECTIVES, CLASSIFICATION, DESIGN AND EVALUATION

A. Definition of Credit Guarantee

Credit guarantees are generally defined as a type of insurance whereby the guarantor provides insurance against default for borrowers with good projects but who lack collateral and therefore are unable to obtain a bank loan (MIT Dictionary of Modern Economics, 1993). A clear and concise definition of a credit guarantee, however, is usually not provided for most guarantee schemes. A typical credit guarantee scheme involves three agents or participants - guarantor, lender, and the borrower - who are linked together in a contract as shown in Fig. 1.

Figure 1. Credit Guarantee Participating Agents.



The participants strive to maximize their objective functions through the guarantee contract. An ideal credit guarantee scheme shares risks among all the agents in an incentive compatible way so as to increase lending to a rationed clientele at low costs and in a sustainable fashion.[2]

There are two schools of thought regarding the concept of a credit guarantee scheme: (i) credit guarantees are considered analogous to collateral (Bautista, 1989; Llanto and Casuga, 1992; Oehring, 1995; von Stockhausen, 1988), and (ii) credit guarantees are viewed as insurance (Krahnen and Schmidt, 1994; Pomerada, 1984; USAID, 1988).

Credit guarantees can be thought of as collateral since they possess the three attributes of loan collateral: appropriability, free of collateral specific risks, and accrual of benefits to the borrower during the contract period.[3] Credit guarantees are limited, however, in their ability to fully substitute for collateral. The functions of collateral include its ability to signal borrower creditworthiness, to share risks between the borrower and the lender, and to enforce contracts through the use of threats. While credit guarantees facilitate risk sharing with lenders, they cannot function as an effective threat mechanism for the lender since they are provided by an external agency. Therefore, credit guarantees are incomplete alternatives to loan collateral.

Credit guarantors are institutions that for a fee insure lenders by promising to reimburse them, at least in part, if the borrower fails to fulfill loan obligations. However, unlike guarantees, insurance does not exclude nonborrowers, and pays for the loss of asset value financed by both the debt and equity of a project without appropriating the borrower's collateral. In contrast, credit guarantees cover only the borrower's debts, cover the loss of capacity to service debt, and usually

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[2] An incentive compatible contract is such that no other contract gives the participants a higher expected utility compared to the chosen one. It satisfies the objectives of all participants and is self enforcing (Philips, 1989).

[3] Appropriability refers to the ability of the lender to liquidate the collateral in case of default. Specific risks can be reduced by insuring an asset for risks against theft, fire, disease, and by accepting assets that are secure from inflation and political risks. Real estate and land with proper titles are generally low risk while vehicles and animals constitute more risky assets unless properly insured. Accrual of returns to the borrower during the contract period refers to the receipts of direct and indirect economic returns from the asset and from the loans obtained using the asset as collateral (Binswanger, 1986).

seize the borrower's collateral in the event of default. The majority of the credit guarantee schemes insist that the lender liquidate the borrower's collateral to cover losses before claiming indemnities from the guarantor. Credit guarantees cease to act as insurance for the borrower when collateral is lost in the event of default. Credit guarantees only insure lenders. When banks are unable to foreclose on a borrower's collateral before invoking the guarantee, then the borrower can keep the collateral in spite of default [4]. In this case, credit guarantees function as insurance for both the lender and the borrower.

The above discussion points out that while credit guarantees can insure lenders, they are an incomplete collateral alternative for both lenders and borrowers. Guarantors underwrite a portion of the lender's risks to induce them to serve a clientele that would otherwise not be served. Therefore, the above definitions that consider credit guarantees as either collateral or insurance are not complete enough to adequately encompass all the agents involved. The concept of a credit guarantee can, nonetheless, be understood by examining the objectives of the agents involved.

B. Objectives of Credit Guarantees

Credit guarantee schemes generally have two major objectives: (i) to improve access to financial services for a targeted sector by reducing risks and transaction costs, and (ii) to encourage lenders, usually banks, to undertake profitable lending to a new unserved clientele which may eventually lead to financial deepening (Stearns, 1993). The challenge of meeting these twin objectives can be analyzed by examining five major issues for each of the three participants in credit guarantee schemes. These issues are: (i) additionality, (ii) collateral requirements, (iii) viability, (iv) costs and fees, and (v) learning. These issues are often interconnected as they relate to the objectives of all the participants as will be shown in the following discussion.

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[4] The lender may be unable or unwilling to foreclose on collateral due to high transaction costs, legal restrictions, and weak enforcement of loan repayment by bank officials.

1. Additionality

Additionality refers to an increase/expansion in services to new clients who previously lacked access to loans. Additionality in lending can occur in several ways: increases in the number of borrowers who otherwise would not have been served, longer repayment and increases in the size of loans, loans to established borrowers but for new purposes or businesses, and increases in the number of borrowers who graduate to borrowing with no or a reduced guarantee. In addition, graduation should also occur for the financial institution through an increase in the number of new clients who were previously credit rationed. When additionality occurs, it satisfies the guarantor's objective of increasing access to loans for the target population, it benefits the banks through serving an expanded clientele at reduced risks, and the borrower may be benefitted through increased access to loans and/or improved loan terms and conditions.

2. Collateral Requirement

Guarantors typically assume that collateral is a major constraint for a target population in accessing formal loans. Therefore, the guarantor's objective in providing credit guarantees is to contribute to meeting the collateral requirements set by banks, especially for the targeted clients. The banks, on the other hand, might prefer to reduce collateral requirements when the costs of valuing, monitoring, and foreclosing collateral are high and the legal environment makes collateral foreclosure difficult. Therefore, many banks would prefer an alternative mechanism that functions like collateral in reducing risks and enforcing contracts. Borrowers would also prefer to negotiate a loan contract with lower collateral, especially when the costs of collateralization and the risks of losing collateral are high.

3. Viability of Fund

The fund provided by the guarantor to back up guarantees needs to be viable to increase the leveraging capacity of the fund for additional loans and credibility of the guarantor. It is the objective of the lenders to be backed up by a credible guarantor. The borrowers also prefer a viable fund in order to ensure that their access to financial services is sustained. A viable fund must cover its expenses and losses through income earned. Low levels of expenses and losses, and a steady income earned through guarantee fees and interest earnings from investments facilitate

the long-term viability of the fund. A fund that must be continuously subsidized with additional resources is unreliable and runs the risk of collapse.

4. Costs and Fees

Direct and indirect costs are involved in the operation of a guarantee scheme. The direct costs consist of expenses incurred in operating the fund including employee salaries and transaction costs in dealing with banks and borrowers. These operating costs are related to the efficiency of the program in delivering the intended services to the targeted clientele. Obviously, all three participants prefer low operating costs. Guarantees are often subsidized because the income received is inadequate to cover expenses and losses.

Indirect costs arise in guarantees due to moral hazard, adverse selection and the fungibility of loan proceeds that may lead to resource diversion. Moral hazard occurs when the existence of a guarantee affects the effort that the lender or the borrower makes to ensure repayment. For instance, the lender may call the guarantee rather than expend efforts to collect from the borrower. Adverse selection occurs when the purchaser of a guarantee (lender) knows more than the guarantor about the risks of individual loans and therefore purchases guarantees only for those loans of greater than average risk. Both problems exist due to asymmetric information and tend to drive up costs of guarantees (Bosworth et al., 1987). In some cases, risks rise due to the guarantee. This can arise when the banks become less prudent in screening and monitoring borrowers and thus accept risky clients without proper evaluation. These indirect costs can be reduced by charging an actuarially sound guarantee fee directly related to the agents' behavior that will affect the probability of default leading to losses. While lenders and borrowers desire low guarantee fees, guarantors prefer guarantee fees high enough to cover their operating costs, indirect costs and claims.

5. Learning

Guarantors hope to induce banks to learn an appropriate lending technology for target clients so that access to loans increases for these clients. The guarantors hope that by learning better technology banks will continue to offer financial services on a sustainable basis to the target sector after the guarantee is phased out. It is expected that banks want to learn new technologies and explore new frontiers in lending in order to increase their scale and scope of operations and

earn higher profits. Borrowers also prefer that banks eventually learn these technologies so that their access to loans with favorable terms and conditions is sustained after the guarantee program ceases to operate.

While the three participants may hold similar views on some of these five issues, they may differ in others. For example, while lenders and borrowers prefer low guarantee fees, the guarantor needs to set fees high enough to cover costs. Otherwise, it must receive a subsidy. Also, while guarantors and borrowers would like the banks to reduce or eliminate many collateral requirements, the banks would prefer to insist on collateral in addition to the guarantee to reduce losses, and to use it as a threat or incentive mechanism for repayment. Because of these differences, banks may be unwilling to participate in credit guarantee programs, with the effect that the fund will remain idle and no additionality occurs. These interconnected and often competing objectives among the participants create problems in designing ideal guarantee schemes. These issues will be discussed later.

C. Classification of Guarantee Programs

Guarantees can be personal, or extended through an external agency or a mutualist group to which the borrower belongs.[5] While personal guarantees can be effected through the borrower's reputation and assets that can be used as collateral, external guarantees are provided either by individual third parties identified by the borrower or by special guaranteeing agencies. This paper focuses on **external guaranteeing agencies** which will hereafter be referred to as external guarantee programs. A classification system for external guarantee programs is presented in Figure 2.

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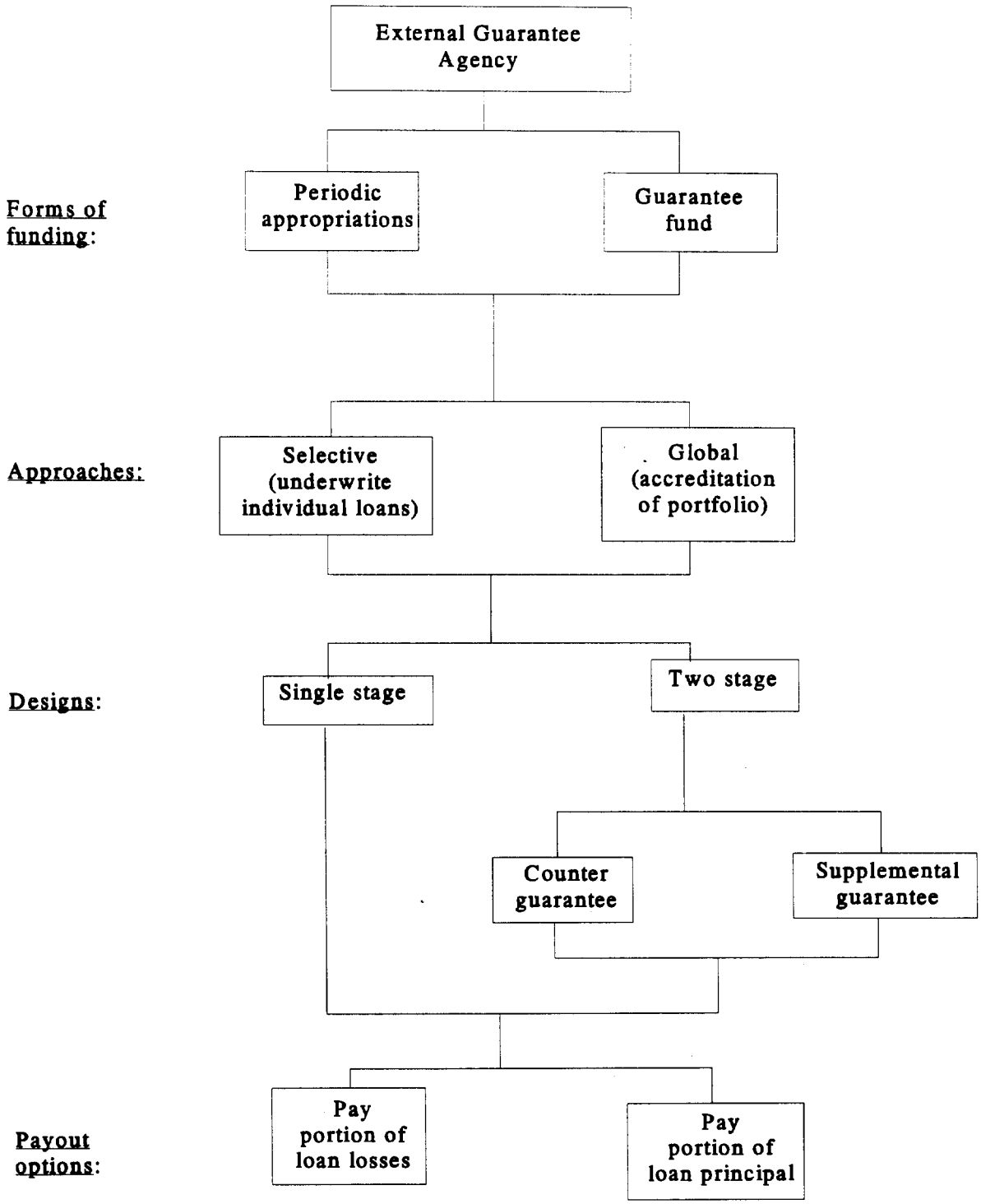
[5] A related type of guarantee not covered in this paper is crop insurance in which the lender is paid an agreed amount by an insurer in the event of crop failure. A good reference on this subject is Holden, Hazell and Pritchard (1991).

Figure 2: Classification of External Guarantee Programs.



Guarantee programs can be classified based on their forms, approaches and designs.

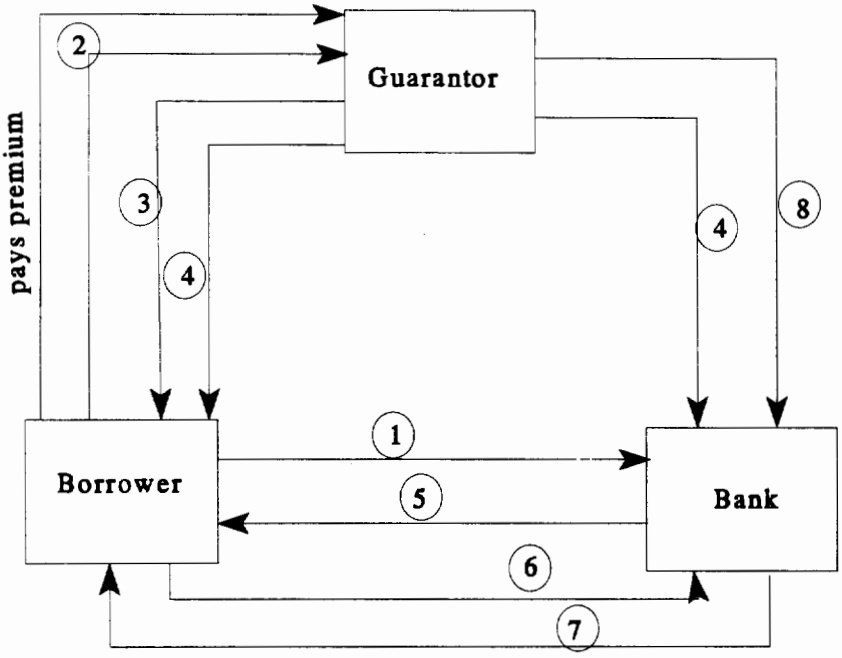
1. Forms of Funding

Credit guarantees can be financed out of **periodic appropriations** or payments to the guaranteeing agency to cover operating costs and indemnities paid on losses incurred by lenders in serving a target clientele. Alternatively, **guarantee funds** can be created out of lump sum grants or appropriations. In some cases, guarantee funds are created out of capital subscriptions by the owners of the fund. The earnings of the fund are intended to cover costs.

2. Approaches of Credit Guarantee Schemes

Two basic approaches are used to implement guarantee programs: selective and global. The **selective approach** involves the coverage of selected risks in which individual loan applications are assessed and underwritten by the bank and the guarantor (see Fig. 3). A selective guarantee establishes a direct relationship between the guarantor and the borrower, on the one hand, and the guarantor and lender, on the other hand. The relationship between borrower and lender requires that the lender use an appropriate screening and sorting technology to make good loan decisions. The guarantor investigates each and every loan application and selects the specific loans to guarantee. Since the guarantor evaluates each loan, the bank's screening, monitoring and risk costs may be reduced (Oehring, 1992). However, moral hazard may occur if the lender reduces its effort to screen applicants because it relies upon the guarantor to do so. This approach implies that the guarantor believes that it has better information or analysis techniques on which to base guarantee decisions than does the bank in making loan decisions. For this reason, banks sometimes make loans that guarantors refuse to guarantee. But it is difficult for a guarantee institution with limited branch networks to actually have more information than the bank to screen and monitor risky clients. Furthermore, this approach may impede the development of a long-term relationship between borrower and lender that is needed for future transactions without guarantees. In other words, less learning may occur for the banks than is desirable. The selective approach, in addition, has the disadvantage of being costly and results in only a limited number of loans guaranteed. If the guarantee works as designed, the loans guaranteed are likely to be riskier than average, so they are subject to heavy loan losses.

Figure 3: Procedure for a Selective Guarantee of Individual Loans.

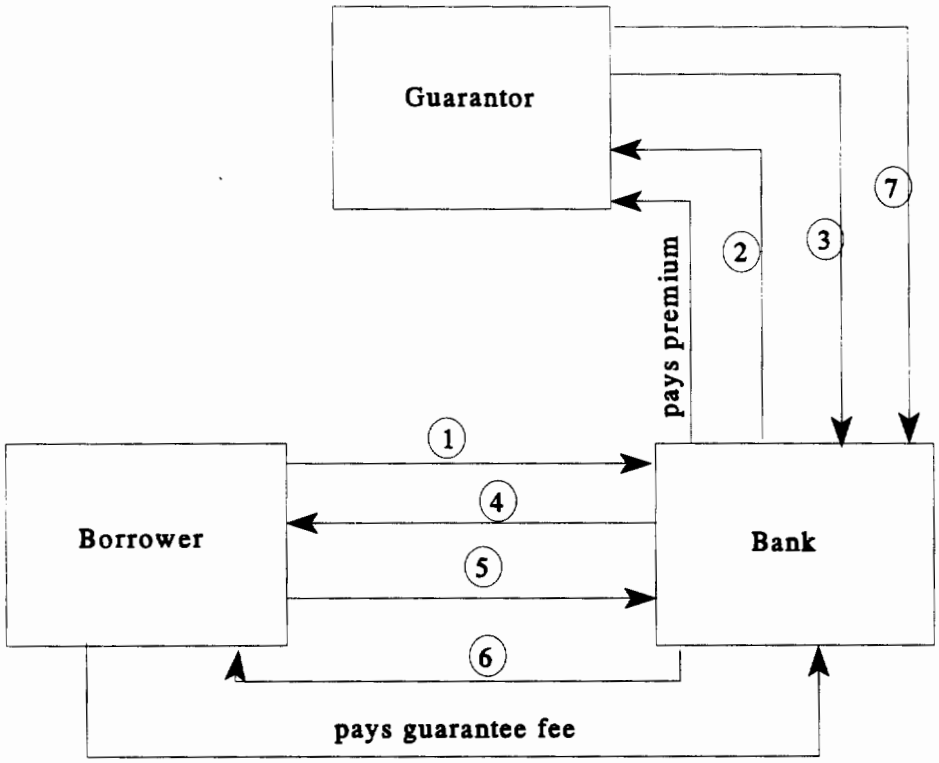


1. Targeted applicant requests loan from a bank.
2. Applicant applies for guarantee.
3. Guarantor appraises the applicant.
4. Guarantor approves the guarantee.
5. Bank accepts collateral from applicant and provides loan.
6. Borrower defaults.
7. Bank recovers part of loss through collateral liquidation.
8. Guarantor pays indemnity for remaining losses per guarantee agreement.

In the **global approach**, all borrowers in a targeted portfolio are covered. This is similar to the accreditation of a portfolio in the insurance business (see Fig. 4). The premiums paid by less risky borrowers in a portfolio are expected to compensate for net losses incurred from high risk borrowers. This cross-subsidization is intended to facilitate coverage of a larger client base and help diversify risks. The global approach establishes a direct relationship only between the guarantor and the lender(s). The guarantee is automatic for those loans which fall within the guarantee criteria so the guarantor avoids the cost of examining individual loan applications (Oehring, 1992). This approach reduces the information costs of screening and monitoring of borrowers for the guarantor, but not for the lender. The guarantor faces a potential moral hazard problem with the lender. As with the selective approach, if the guarantee coverage is large, the lender may reduce costs through less prudent loan screening and thereby increase the riskiness of the portfolio. Normally it is assumed that the banks' desire to preserve their reputation in evaluating loan applications will reduce the moral hazard problem. Some of the blanket coverage of loans made to a targeted sector come under this global approach.

Credit guarantee programs are further classified based on design features discussed in the next section.

Figure 4: Procedure for a Global Guarantee of a Loan Portfolio



1. Targeted applicant requests loan from a bank.
2. Bank screens the applicant and applies for targeted sector guarantee cover.
3. Guarantor provides blanket cover.
4. Bank accepts collateral from the borrower, provides the loan and monitors the borrower.
5. Borrower defaults.
6. Bank recovers part of losses through collateral liquidation.
7. Guarantor pays indemnity for remaining losses per guarantee agreement.

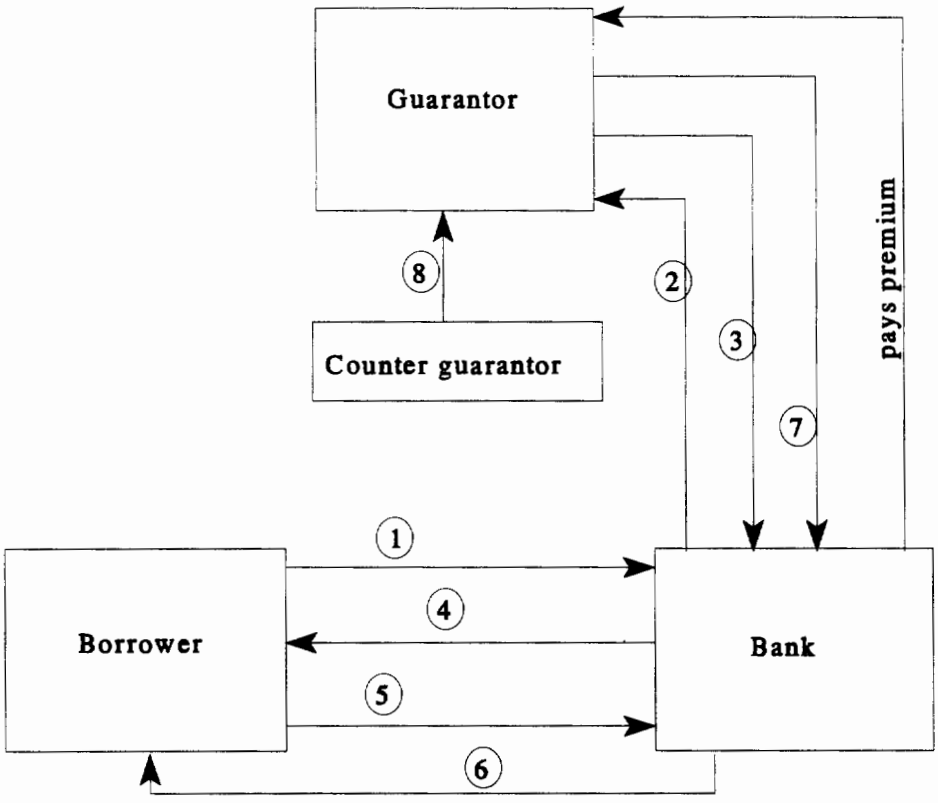
D. Designs of Credit Guarantee Programs

Several features are common to guarantee programs of both forms and approaches as shown in Fig. 2. The guarantee program can be designed either as a **single-stage** or **two-stage guarantee**. Single-stage guarantee programs involve a single guarantor paying the loan losses incurred by lenders for making loans to targeted clientele, while two-stage guarantees involve more than one guarantor.

Two-stage programs can involve a **counter guarantor** who is liable to the main guarantor for an agreed level of indemnity payments made to lenders. The counter guarantor need not approve of every guarantee issued by the main guarantor even though it agrees to share in the risk. This type of risk sharing directly protects the claims of the main guarantor and eventually the claims of the lender. Figure 5 shows the design of a global guarantee scheme with a counter guarantor. This model is similar to the counter guarantees extended by the federal and state governments in Germany to the Burgschaftsbanken, a national system of credit guarantee companies that primarily guarantees loans made by banks to small and medium sized enterprises (Burgschaftsbank, 1993).

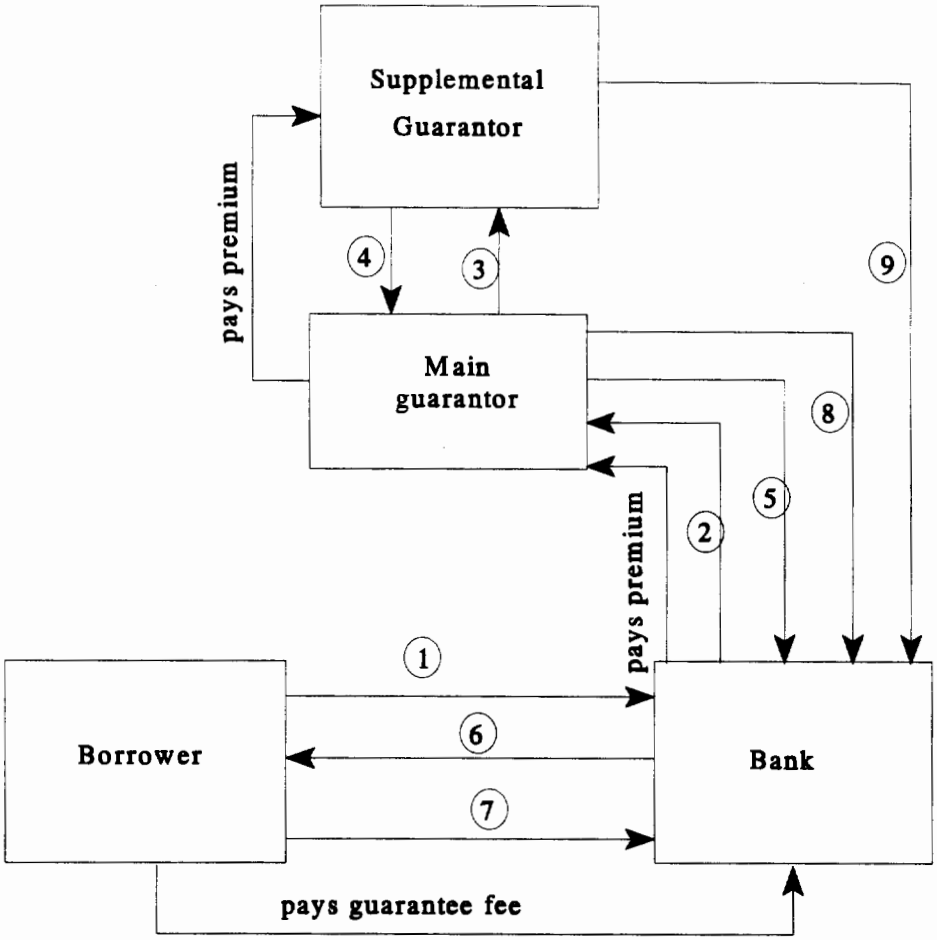
Alternatively, two stage guarantee programs can be designed to include a **supplemental guarantor** that is directly liable to the lender for loans not collected from borrowers and indemnities not collected from the main guarantor. This arrangement directly protects the lender (see Fig. 6 for the design). The supplemental guarantor needs to approve every guarantee issued by the main guarantor. The majority of guarantees covering political risks extended to governments by the World Bank fall under this category. The World Bank functions as a supplemental guarantor to the respective governments so that risky loans made by banks are guaranteed (MIGA, The World Bank). Supplemental guarantors are preferred in countries where the main guarantors are frequently not able to meet claims, especially due to political risks.

Figure 5: Global Guarantee of Loan Portfolio with Counter Guarantor.



1. Targeted applicant requests loan from a bank.
2. Bank recommends guarantee cover under the target guarantee.
3. Guarantor approves the portfolio.
4. Bank accepts collateral from the borrower, provides the loan and monitors the borrower.
5. Borrower defaults.
6. Bank recovers part of losses through collateral liquidation.
7. Guarantor pays indemnity for remaining losses per guarantee agreement.
8. Counter guarantor pays guarantor a portion of the losses paid by guarantor.

Figure 6: Global Guarantee of Loan Portfolio with Supplemental Guarantor.



1. Targeted applicant requests loan from a bank.
2. Bank applies for target sector guarantee cover from the main guarantor.
3. Main guarantor applies for guarantee from supplemental guarantor.
4. Supplemental guarantor approves guarantee.
5. Main guarantor approves guarantee.
6. Bank accepts collateral, makes the loan and monitors the borrower.
7. Borrower defaults. Bank recovers part of losses through collateral liquidation.
8. Main guarantor pays indemnity for remaining losses to the bank per guarantee agreement.
9. Supplemental guarantor pays bank for deficit payment of main guarantor.

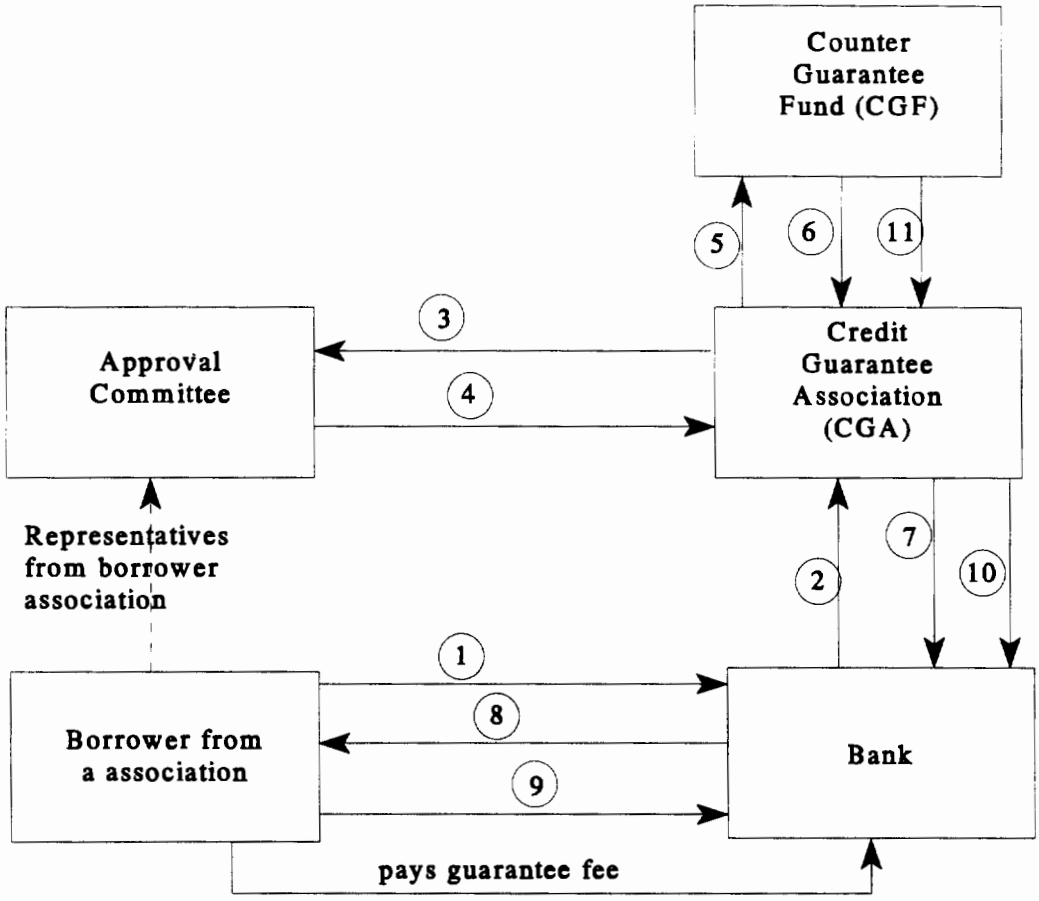
These also exist several two-stage guarantees that involves mutual credit associations, non-governmental organizations (NGOs) and donors. A typical two-stage guarantee program that involves mutual credit associations is diagramed in Fig. 7. The main guarantor, which is a mutual association, is counter guaranteed by a donor. The mutual association is formed by potential borrowers with limited access to bank loans. It offers a guarantee to the lender for loans made to its members. A counter guarantee fund is formed through donor funds to increase the guarantee coverage of the mutual associations and to share the lending risks. The mutual association evaluates the borrowers, recommends them to the bank for loans, and serves as guarantor. The bank can seek indemnity payments from the association for loans defaulted by borrowers, and the association can claim recapitalization from the counter guarantor (von Stockhausan, 1987, 1988).

E. Payout Options

Another dimension of the design of guarantee programs is the payout option in the event of default. The payout options can be designed so the guarantor **indemnifies a portion of actual loan losses**. The guarantor is liable to the lender only for the deficiency in payments made by the borrower. The bank has to exhaust all means to collect the loan and prove to the guarantor that there is a deficiency. Therefore, the lender must appropriate the collateral offered by the borrower to cover loan losses before calling on the guarantor for payment. Furthermore, the guarantee agreement may require the lenders to continue efforts to collect loans even after the claims are settled, and share the proceeds with the guarantor according to an agreed formula. The majority of the guarantee programs discussed in this paper follow this payout option. In some cases, the guarantors assume the responsibility of collecting the loans from defaulters before settling the banks' claims.

An alternative payout option is one in which the guarantors **indemnify a portion of the loan principal**. In this case, the guarantor agrees to reimburse a portion of the loans extended to the target sector in the event of default. Several of the schemes that rediscount loans made by banks to the target clientele are examples of this type of payout option. The design of the payout option can have profound effects on banks' efforts to collect defaulted loans.

Figure 7: Two-stage Guarantee involving Mutual Credit Associations.



1. Target applicant from the association applies for a loan from a bank.
2. Bank applies for the guarantee with the CGA.
3. CGA sends bank application to Approval Committee.
4. Approval Committee appraises and recommends guarantee coverage.
5. Upon approval by the committee, CGA applies to CGF for counter guarantee.
6. CGF approves guarantee based on CGA recommendations.
7. CGA approves guarantee upon CGF approval of guarantee.
8. Bank accepts collateral, makes loan and monitors the borrower.
9. Borrower defaults and bank recovers part of losses through collateral liquidation.
10. CGA pays indemnity for the losses to the bank per guarantee agreement.
11. CGF pays CGA for all the losses incurred.

F. Optimum Guarantee Design

The optimum design of a loan guarantee scheme should maximize the objectives of all participants involved in an incentive compatible way. The challenge in developing the optimum design involves establishing guarantee coverage, fees, premiums, and procedures so they are attractive enough to encourage lender participation and improve loan access to the target clientele, but not so attractive so as to encourage moral hazard, adverse selection and huge losses which undermine the viability of the guarantee fund. Any loan contract involves potential moral hazard and adverse selection problems, but credit guarantees involve two levels of moral hazard and adverse selection. The first level arises in the normal process of lenders selecting borrowers. The second level occurs in the selection of lenders by the guarantor. The incentives (positive and negative) provided by the guarantor simultaneously affect the degree of moral hazard and adverse selection at both levels since they may increase or decrease the efforts made by lenders to screen, monitor and enforce contracts. Therefore, the design of credit guarantee contracts significantly affects the behavior of all three participants. The introduction of a second level of risk implies that the total risk of lending (including the lender and the guarantor) may actually rise with a guarantee. Furthermore, total loan transaction costs can be expected to rise with the introduction of a guarantee.

Contracts are designed with three major elements: (i) sharing risks, (ii) sharing responsibilities, and (iii) guarantee fees. These elements affect the participants' behavior and ultimately the success or failure of the guarantee scheme.

1. Sharing Lending Risks

The way that lending risks are shared is essentially determined by the guarantee coverage provided by the guarantor, and the quantity of collateral offered by the borrower. The lender bears the risk that remains after the collateral is liquidated and guarantees are paid. The guarantee coverage, however, needs to be calculated based on the net present value of transactions cost, probability of default, and economies of scale and scope for the lender in adding the new clientele. Otherwise, there will be unequal sharing of risks among the participants that introduces moral hazard problems.

To illustrate the implications of contract design for the sharing of risk, assume the guaranteed coverage is 100 percent of loan losses and the transaction costs for servicing the targeted clientele are similar to other borrowers. Let the guarantee fee be fixed and small. In this case, no lending risks exist for the banks but the risks for the guarantee fund are very high. So there are strong incentives for the banks to participate and lend to the target sector. The guarantee will likely induce the lenders to be lax in screening and monitoring guaranteed borrowers and collecting their loans. As a result, a high level of guarantee coverage will lead to moral hazard on the part of the lenders and losses to the guarantor. However, if the lenders value their reputation as using prudent banking practices, the moral hazard will be diminished. Another problem with a high level of guarantee coverage is that the full coverage of losses by an external agency may signal to borrowers that a subsidy or grant is involved, and this may lead to moral hazard and loan defaults. Large guarantee payouts would then eventually decapitalize the guarantee fund.

Assume, on the other hand, that the guarantee covers less than 50 percent of the loan losses. Here, the lending risks for the bank are high in spite of the guarantee. In this case, four conditions are necessary to induce liquidity unconstrained lenders to participate in the program: (i) transaction costs are low, (ii) default rates are low, (iii) good risk-free collateral is offered by borrowers, and (iv) good information exists on the creditworthiness of the borrower's project. Otherwise, lenders will shy away from use of credit guarantees and continue to ration loans to risky clientele.

A non-linear guarantee scheme (tiered portfolio) that covers loan losses incurred by a bank in lending to the target clientele based on the rate of default has been proposed as an alternative to the two situations above of full and low partial guarantee coverage (Ministry of Trade and Industry of South Africa and the World Bank, 1994, 1995). Loans would be guaranteed at a low rate if losses are modest, at an intermediate rate if losses are higher, and at the highest level for the highest level of losses. It is expected that tiered guarantee coverage will have two effects: (i) encourage the banks to make loans to the risky sector, and (ii) reduce the bias towards low risk portfolios. The bias is reduced because low risk clients do not pay a fixed guarantee fee for a fixed level of guarantee coverage. The guarantee coverage and the fee can be reduced for the less risky

clients. For example, the Fondo Nacional de Garantia (FNG) in Colombia charges the clients three percent per annum for coverage up to 40 percent of loan amount to less risky clients, and up to four percent per annum for coverage up to 70 percent of loan amount to more risky clients.[6]

In addition to guarantee coverage, the way risks are shared is also affected by the type of losses covered, and delays or failures in claim settlement. For a given level of guarantee coverage, it has been shown that the coverage of a portion of loan principal losses can induce better lender participation than a fixed coverage of loans extended by banks to the targeted clientele (Sherrick, 1993). Frequent and long delays in claim settlement will discourage lender participation in a guarantee program despite a high coverage offered.

2. Sharing Responsibilities

Sharing responsibility refers to the efforts exerted by lenders to make and collect loans, assume ownership of collateral in case of default, and share recoveries from defaulted loans received after claims have been settled. The ownership of the guaranteeing agency and the lending institution affects the way in which responsibilities are shared and executed. For instance, differences exist between government guarantors working with development banks compared to private guarantors working with private commercial banks. On the one hand, heavy involvement by the guaranteeing agency in loan allocation and contract enforcement should reduce moral hazard, but undermines the ability of banks to learn how to lend to the target clientele. In addition, it is not obvious that guarantors are more efficient than banks in loan appraisal, monitoring of borrowers and loan collection. On the other hand, too little involvement by the guarantors in the details of bank lending to the target sector will likely increase moral hazard.

3. Guarantee Fees

Guarantee fund viability requires that premiums for guarantees cover actuarial losses, and direct and indirect costs. Viability is achieved by a combination of adequate premiums, low operating costs and small losses. A risk based premium needs to be devised in which the guarantor charges a fee commensurate with the riskiness of the guarantee. This is possible, however, only

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[6] However, the premium rates are not based on any actuarial studies and thus may be either insufficient or excessive for a specific clientele (Huttenrauch, 1995).

when the guarantor has good information to assess the riskiness of the guaranteed portfolio and establish an appropriate price for coverage.

Designing a suitable contract between the banks and the guarantors is essential for a successful credit guarantee scheme. Safeguarding the fund through low guarantee coverage, high guarantee fees, and heavy involvement in lending decisions will likely result in little additionality. Alternatively, a high guarantee coverage with low premiums and little supervision by the guarantors will likely induce moral hazard and adverse selection leading to inefficiency, at best, and collapse of the scheme at worst. Several scenarios consisting of different levels of the three design components - guarantee coverage, guarantee fee and responsibilities - need to considered in the design of an optimal contract that satisfies all the participants.

It is difficult to suggest a generic design of a credit guarantee program that will satisfy the objectives of all three participants. However, a guarantee mechanism is likely to be effective only if the following conditions hold: (i) banks can make profitable loans to the target population, (ii) risk is shared among all the agents, (iii) the level of guarantee coverage reflects the risks, (iv) guarantee fees are high enough to minimize moral hazard by banks that try to guarantee loans that can be made without guarantees, (v) fees and interest incomes are high enough to cover expenses and defaults, (vi) the guarantor is credible, and (vii) lenders achieve good repayment through prudent loan screening, monitoring and collection procedures.

The attributes of the guarantee program - guarantee level, guarantee fee, costs of operation, shared responsibility - affect the selection of borrowers receiving guaranteed loans. Guarantee programs will be adopted by lenders only if their risks and/or costs decline and operating efficiency improves. Technical assistance and subsidies to lenders to cover costs may encourage active participation by banks. An active secondary market for guaranteed loans may also increase lender participation (Rhyne, 1988). It is shown that a viable fund will be able to bear administrative expenses and claims at a reasonable default rate of 5-10 percent of the outstanding guarantees (USAID, 1988).

While the design of the guarantee program matters, several general conditions may also need to exist for credit guarantee programs to function effectively. These include: (i) sufficient liquidity in the banking system so lenders have funds to lend, (ii) participating banks are reputable

institutions so they minimize moral hazard and adverse selection, and (iii) banks desire to work with targeted clients but lack experience and information. Credit guarantee programs may improve access to targeted sectors in environments with inefficient financial markets where lenders are unable to lend to the target sector due to inadequate technology and resources. Credit guarantee schemes are not suited, however, for areas with perfect financial markets where financial arbitrage is carried out efficiently (Krahnen and Schmidt, 1994).

While these conditions can facilitate the operations of a credit guarantee program, the actual implementation of the program will determine if the objectives of the three participants are met. The available evidence reported in Levitsky and Prasad from several countries show that credit guarantees frequently have been ineffective in fulfilling the objectives. It is important, therefore, to evaluate credit guarantee programs in operation in developing countries to assess how well they are achieving the objectives of the participants. The next section discusses these issues.

G. Evaluation of Credit Guarantee Schemes

This section has two purposes. First, there will be a discussion of the key issues involved in evaluating credit guarantee schemes. This discussion will help explain why few comprehensive evaluations have been conducted and will set the stage for the second section. The second section presents the findings of our analysis concerning the impact of credit guarantee schemes. It was based on the data we assembled on guarantee programs and the reports that others have written about them. This analysis leads to the conclusion that surprisingly little quantitative information is available to support the use of guarantees for the purposes usually proposed. Much more analysis is needed to determine if guarantees really produce the results that their designers expect, and if the benefits obtained justify the costs and subsidies involved.

1. The Lack of Good Evaluations

Considering the large number of guarantee schemes that have been tried or are in place and the relatively long time that guarantees have been used as policy instruments in the U.S. and abroad to influence lending, surprisingly few comprehensive evaluations have been conducted. There are at least four reasons that explain this situation.

a. Methodological complexity. The difficulty of analyzing the impact of credit programs are many and well understood (see for example David and Meyer, 1980; Von Pischke and Adams, 1980; MSI, Feb. 1990). AID has recognized these problems and has a new project in the Office of Microenterprise Development designed to develop techniques for impact analysis. The essential attribute of money is that it is fungible; it can be used for a variety of uses and one unit from one source is completely substitutable for a unit from another source. For this reason money is a valuable commodity, but fungibility creates problems when trying to analyze the impact of a loan, especially when the loan was intended for a specific purpose. Assume that a loan was intended to, say, buy a production input. It is possible that the borrower would not have been able to buy any of the input without getting the loan. In this case, the loan can be said to have "caused" the purchase of the input, and the "additionality" attributable to the loan is the full value of the purchase. On the other hand, the borrower might have intended to purchase the input even without the loan, but uses the loan proceeds to substitute for his own resources and spends them for other purposes. Then the additionality "caused" by the loan is whatever the borrower chooses to do with the resources previously destined for the purchase. Furthermore, when loan monitoring is lax or difficult (did the borrower really apply the stated level of fertilizer?), the borrower may choose to divert loan funds intended for purchasing the input to an entirely different purpose.

To understand the impact of a loan, therefore, it is necessary to estimate the "counter factual," that is, what would the borrower have done without the loan, then compare that situation with what was actually done with the loan. Social science research, however, cannot be conducted as an experiment in which control groups are compared with groups that differ only because of a treatment. Some kind of estimate or proxy must be used to represent the counter factual. Frequently this is accomplished by simply comparing baseline data from borrowers with their situation some time later, and attempting to attribute some portion of whatever changes are observed to their borrowing. Alternatively, attempts are made to compare the performance of borrowers (the treatment group) with nonborrowers (the control group) and attribute whatever improved performance observed in the treatment group to the effects of borrowing.

These attempts to estimate the impact of loans have limitations. First, they don't completely control for all factors external and internal to the firm, in addition to borrowing, that

affect its performance over time. Second, there are problems of selectivity bias that complicate the comparison of borrowers with nonborrowers. Borrowers, for example, may be systematically different from nonborrowers. These inherent differences may imply that borrowers perform better even without loans than do nonborrowers (Adams, 1988). Furthermore, if lenders are doing a good job of screening their borrowers to select those that are most productive and able to repay their loans, we should expect that borrowers will be different from nonborrowers. Researchers must deal with this problem when they attempt to show that borrowers and nonborrowers are similar in all traits except borrowing so that performance differences can be attributed to loans. Alternatively, nonborrowers may simply choose not to borrow rather than be credit rationed by lenders. This implies that borrowers are more likely than nonborrowers to be risk takers, and this trait may contribute to them outperforming nonborrowers.

These problems, associated with any credit evaluation, also exist for evaluations of guarantee programs. It is difficult to determine the impact of credit guarantees without knowing what lenders and borrowers would have done without access to guarantees. Furthermore, access to guarantee programs is not random. Not all lenders and not all borrowers have access to guarantees. Those that do may have inherent qualities different from those that don't. If so, conclusions drawn from evaluations of participants may not be useful in projecting impacts if guarantees were extended to nonparticipants.

Another problem concerns the fact that the "treatment" in a credit guarantee often has multiple components, that is there is a guarantee plus something else. Perhaps it is something external to the guarantee such as a quota for banks to lend to small enterprises. The quota and associated incentives or penalties may "cause" the banks to consider making loans they are convinced are unprofitable. If a guarantee is then offered, they may choose to use it to reduce expected losses. Once the quota is removed, they may discontinue making the loans even with a guarantee. In other cases the guarantee may be part of an integrated package including training and technical assistance. Any attempt to evaluate the guarantee will have difficulty in disentangling the effects of the guarantee from the other elements of the package.

b. Expense. Careful attempts to deal with these methodological problems create costs. It is expensive to carefully design studies, collect data, and use sophisticated analytical

techniques. An indication of the complexity involved in carefully conducting an evaluation using a robust methodology can be found in the paper by Pitt and Khandker (1995) which reports the considerable effort and expense expended by the World Bank in its comprehensive study of the Grameen Bank and other credit programs for the poor in Bangladesh. Nothing similar has been found in the credit literature. Some improvements in evaluation methodology can be made through a second best approach of lenders regularly collecting and reporting data on their activities. This approach raises lender transaction costs, however, and the information collected may be useful for evaluators but has little value in helping lenders improve and monitor their operations. Therefore, lenders have few incentives to do it carefully.

c. Competing objectives. The discussion presented in the previous section described the objectives of the three participants in a guarantee: guarantor, lender and borrower. Their objectives may conflict, and some guarantee programs are not clear about their objectives. Rhyne comprehensively analyzed this problem regarding the Small Business Administration (SBA) guarantee program in the U.S. On the one hand, if a guarantee is intended to reduce market failure in credit markets, then borrower impact is less significant. The crucial issue is whether or not market failure is reduced. However, if the guarantee is designed as a subsidy to stimulate growth through lending to small scale firms, then it is important to determine if the firms of guaranteed borrowers actually grow faster than those of nonguaranteed borrowers. Clarity in the objectives of guarantee programs would help to identify what data are important to collect for an evaluation, and the type of analysis needed to determine if objectives are being met.

d. Incentives. The last reason that explains why comprehensive evaluations are so rare concerns the lack of incentives for reliable and accurate results. Rhyne's analysis of the source of the political support in the U.S. for the SBA is illustrative of the fact that there may not be strong demand for good information. Governments, donors, and banks may be pressured to do something to assist a target group such as microenterprises in developing countries. The easiest way to respond and spend money, short of making subsidized loans, may be to fund a guarantee program. Political benefits may be obtained by creating it, while leaving to someone else the problem of determining if it met expectations. Even if it accomplishes little or even produces unexpected negative results, the problem may not emerge until much later.

2. Expected Impacts of Guarantees

The previous section reviewed some theoretical aspects of guarantees. Three types of participants are involved in guarantees so evaluations need to assess the possible impacts on all three. Most studies, however, have been limited to only one or a few issues that the author(s) were commissioned to study or believe to be most important. Since the objectives of many schemes are vague, the evaluations are often unclear about what to analyze, how to measure it, and how to evaluate the positive and negative results obtained for the three participants. Furthermore, many schemes do not collect baseline data so evaluators have difficulty in clearly determining if quantifiable changes have occurred.

a. Impact on the Guarantor

The simplest aspect to evaluate is the evolution of the guarantee fund or the annual appropriations used to cover operations and loan losses. In many schemes, a fund is endowed to finance the operations of the guarantor. The income realized by the fund from fees and investment income must cover operating expenses, losses and a reserve for future contingencies if it is to be self-sufficient in the long term without continuous subsidies. Data on fund incomes and expenses are published for some large programs in Colombia, India, Mexico, Nigeria, and the Philippines. Unless they are carefully audited, however, published accounts must be viewed with caution because of the creative accounting practices sometimes employed to hide deficits and other problems.

The data and anecdotes available for several funds suggest that many fail because the payments to lenders for loan losses far exceed the revenues and reserves of the funds. For example, the Nigerian Agricultural Credit Guarantee Scheme was set up in 1977 with a capital fund of N100 million to stimulate lending to small farmers. The data in Table 1 report the income, expenses, and claims made on the fund for the period 1978 to 1988. The fund was slowly decapitalized because the operating costs and claims in several years exceeded investment income. In 1988 about 15 percent of the guaranteed loans were reported in default (Njoku and Obasi, 1991). They represented almost 30,000 loans valued at almost $30 million. The data in Table 1 show the total value of claims made represented over 20 percent of the loans guaranteed. Less than two percent of the claims were met, however, implying serious limitations in the

implementation procedures. The slow payment of claims may have been the only way to preserve the fund's assets.

Although details were not provided, Oehring (1995) reported on the status of 12 guarantee schemes in 11 Latin American countries. Two had existed for over two years, are insufficiently used and show deficits, but possess sufficient assets to cover guarantees and losses. A third scheme that works with microenterprises was restructured two years ago, and so far shows good results. The other nine have no assets remaining or have been closed. He attributed some of these failures to poor design. Others failed because they were managed unprofessionally with poor and undiversified investment strategies in rapidly inflating economies. In other cases through corruption or political intrigue, guarantees were granted to borrowers who had no intention of repaying their loans.

Table 1. Agricultural Credit Guarantee of Nigeria, 1978-88.

Years	Guarantees issued	Investment income	Admin. expenses	Claims made	Claims met
			('000 Naira)		
1978	11,284	472	na	-	-
1979	33,597	1,547	443	-	-
1980	30,945	2,718	631	90	0
1981	35,642	7,034	898	613	0
1982	31,764	7,465	1,852	3,394	245
1983	36,309	8,573	1,553	7,000	356
1984	24,656	9,286	1,755	10,500	0
1985	41,500	10,184	2,041	na	789
1986	68,418	10,712	2,170	26,800	0
1987	102,153	15,630	4,039	28,900	530
1988	118,611	16,000	4,830	36,800	382
Total	**534,879**	**89,621**	**20,212**	**114,097**	**2,302**

Source: Prepared by Michael Gudger, consultant, based on annual reports of the Agricultural Credit Guaranty of Nigeria, 1978-1989.

If more complete information were available, we suspect it would show that the financial landscape is littered with failed guarantee schemes. The cases we were able to assemble in the next section reveal many where guarantees have failed, or where the lack of information suggests that failure is imminent. There are many allegations that funds have failed to pay claims or have dragged out the claim process, because payment would have exhausted the fund. It appears that similar to many subsidized credit programs, guarantees have been set up and appear viable for a few years. Then loan losses begin to emerge, and eventually mushroom so the fund fails; it is recapitalized, and the cycle starts again. The experience of the Credit Guarantee Corporation in Nepal clearly fits this description. The Corporation guarantees loans made by commercial banks to small enterprises. Although it guaranteed less than half of the loans made to the priority sectors in the mid-1980s and many defaulted loans were never submitted for claims, the fund failed and had to be recapitalized (Kongsiri, 1987). One explanation for this pattern is political. One regime or administration benefits by giving the impression of doing something to assist the priority sector by starting a guarantee fund, then leaves to its successors the burden of dealing with a failed program.

An issue for which we found little information concerns the efficiency of fund operations. Some funds provide global guarantees so they avoid evaluating the applications for individual guarantees. Selective guarantees programs, however, require staff to review and sanction the individual loans guaranteed. The efficiency of the review process influences the costs of operations, and the transaction costs and waiting time borne by borrowers. Information on the latter is reported below, but there is little information about the former. The system for making agricultural loan guarantees in Mexico by FEGA (Fondo Especial de Asistencia Tecnica y Garantia para Creditos Agropecuarios) illustrates the problem (The World Bank, 1994). In this system FEGA staff essentially replicate the functions of and, in some cases, substitute for bank staff in appraising, monitoring and collecting loans. This process sharply increases the total transaction costs of lending. These FEGA services were provided free until 1988 when charges of two to three percent of the value of loans made were introduced. Even with these charges, income has been too low to cover administrative costs and loan losses.

The method used to fund guarantee programs influences the difficulty with which they can be evaluated. Programs financed out of annual budget appropriations offer one advantage with respect to public policy. The annual costs of these programs are more transparent than in programs funded out of endowments so the benefits can be more easily debated relative to the costs. (Obviously this didn't happen in Mexico until recently even though the high costs of agricultural credit were known for years.) Most accounting systems for endowed guarantee funds assume the funds have a zero opportunity cost. As long as the fund survives without further capitalization, this implicit subsidy is disguised and may never be evaluated relative to the benefits obtained from guarantees or relative to other means for assisting the target sector. Analysis conducted by Gudger of the accounts of the Fondo Nacional de Garantia in Colombia revealed that the implicit subsidy amounted to almost eight percent per year over the period 1982 to 1994 (Table 2).[7] The annual premium charged against the outstanding guaranteed loans would have to be increased from its average level of 4.8 percent to 12.6 percent for the fund to break even.

b. Impact on Lenders

Analyzing the impact of a guarantee scheme on lenders is considerably more difficult than measuring the sustainability of the fund. If a guarantee accomplishes its objectives, the participating lenders will make more loans to the target sector, and/or the terms will be easier (lower collateral requirements, lower interest rates, longer term, etc.). Through learning by doing the lenders will discover that the target borrowers are not as risky as perceived so eventually loans will be made without guarantees, or at a minimum the guaranteed borrowers who perform well will graduate to unguaranteed loans. In competitive markets, the participating lenders may use the guarantee as a marketing tool to attract business for their other bank products. In countries with secondary markets for loans, guarantees may increase the marketability of loans made with low

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[7] The premium charged was calculated as a percentage of total guarantee income received to total guarantees issued. Break-even premium refers to a percentage of total expenses relative to total guarantees issued. The total guarantees issued refers to total guarantees in force on a given date. The implicit subsidy is the difference between the break-even premium and premium charged.

collateral requirements or loan to income ratios. This advantage may be especially important for lending institutions that are small or have limited liquidity.

Table 2. Fondos Nacional de Garantia of Colombia, 1982-94.

Years	Guarantees in force (mill. Pesos)	Total income (mill. Pesos)	Total expenses (mill. Pesos)	Premium charged (percent)	Break-even premium (percent)	Implicit subsidy (percent)
1982	37	15	20	0.27	0.55	0.27
1983	107	26	3	2.15	2.52	0.37
1984	168	65	11	2.80	6.32	3.52
1985	636	152	50	0.74	7.93	7.19
1986	870	369	60	2.51	6.90	4.39
1987	1,553	490	95	2.32	6.11	3.79
1988	1,685	650	223	3.76	13.25	9.49
1989	1,169	751	412	7.36	35.26	27.90
1990	2,346	925	290	5.50	12.35	6.85
1991	5,297	1,423	354	4.83	6.68	1.85
1992	4,713	1,254	617	6.20	13.09	6.89
1993	7,213	1,203	980	4.80	13.59	8.79
1994	7,917	1,567	1,150	4.83	14.53	9.71
Total	**33,708**	**8,890**	**4,245**	**4.82**	**12.59**	**7.78**

Source: Prepared by Michael Gudger, consultant, based on audited statements provided by the Fundo Nacional de Garantia of Colombia.

As noted above, however, if guarantees are poorly designed or implemented, they can have negative impacts on lenders. The guarantee can induce laxness in loan screening, monitoring and collections so the risks actually rise. Lenders can experience a decline in return on assets for guaranteed loans. Transaction costs and delays in loan processing can rise. If the guarantee turns out to be unviable or inefficient, lenders can suffer unexpected losses because the guarantor lacks funds to cover claims made, or delays in payment of claims raise costs and lower the real value

of the compensation received by the lenders. Suspicions about the credibility of government sponsored guarantee schemes are reported to have contributed to institutions choosing not to participate.

A necessary condition for a guarantee to make an impact on lenders is that loans are actually guaranteed. Our review in the next section reveals cases in which no or only a few loans were ever guaranteed. For example, a review of the AID guarantee for small and medium enterprise loans in Botswana revealed that only 40 loans were guaranteed between 1988 and 1990, and they absorbed only 18 percent of the fund allocated by USAID under the guarantee program (MSI, Nov. 1990). Apparently low participation rates are frequent and cause the termination of many guarantees.

Simply providing guarantees is not sufficient evidence of success for most programs, however, because their usual objective is additionality, i.e., to encourage lenders to make loans that otherwise would not have been made. Proof of additionality requires evidence that the loans received by guaranteed borrowers would not have been made without the guarantee scheme, i.e., the counterfactual problem discussed above. The few studies found that carefully test for additionality have produced mixed results. Two reports analyzed the impact of AID support for the guarantee that ACCION International provides its affiliates in Mexico, Chile, Paraguay and Costa Rica (MSI, 1990; Painter, 1991). AID established a US$ 1.0 million guarantee facility through a loan to ACCION International in September 1985. The loan was deposited in a U.S. bank which issued standby letters of credit to Latin American banks which agreed to lend from their own resources to local ACCION affiliates. The affiliates used these resources to on-lend to microenterprises. Since the affiliates had little capital and specialized in lending to a clientele perceived to be risky, the evaluators could logically argue that without the guarantee the affiliates would not have been able to borrow. With the guarantee, the affiliates augmented their resources and thereby increased their lending to customers generally unable to access regular bank loans. The affiliates' dependence on grants and loans suggests they had limited access to other sources of funds. The resources made available through the guarantee, therefore, probably resulted in an increase in microenterprise lending of approximately the same amount, that is most of the loans probably would not have been made without the guarantee.

The example of the ACCION affiliates suggests that when lenders have limited funds and a guarantee helps them gain access to loans for on-lending, it is reasonably certain that a large portion of any subsequent increase in loans can be legitimately attributed to the guarantee. The additionality argument is harder to make, however, for large institutions with abundant resources already making a variety of loans. In this situation it is more likely that the loans supposedly made because of a guarantee simply substitute for some loans the institution would have made anyway.

The ACCION affiliates also provide examples of graduation from guaranteed to nonguaranteed loans. The Guatemalan affiliate was able to obtain its second loan without a guarantee because of the local bank's favorable experience with the first loan. Lenders to affiliates in other Latin American countries gradually reduced the guarantee required for their loans. For example, the affiliate in Colombia started with a 90 percent guarantee of losses, but that fell to 30-50 percent in subsequent years. ADEMI, a former ACCION affiliate in the Dominican Republic, is now borrowing without a guarantee. In Chile, however, the lenders to the ACCION affiliate have continued to demand 90 percent because loans made to borrowers with little or no capital must be fully provisioned. The 90 percent guarantee avoids this regulatory problem.[8]

FUNDES (Fundacion para el Desarrollo Sostenible) began a pilot project in Panama in 1984 involving a package of small business services including a credit guarantee for private banks lending to small businesses (Oehring, 1994). Local foundations were later set up in Bolivia, Chile, Colombia, Costa Rica, and Guatemala and included guarantees in their package of services. Generally about 50 percent of the guarantee funds are capitalized by donations from local companies, and the other 50 percent by donations from companies in Switzerland, the home of FUNDES. The funds in four of the countries are reported to be self-sufficient. Some 2,000 firms have received loans, and the overall loss rate on guarantees is less than 2 percent. After four years of operations, however, FUNDES has not been successful in convincing the participating banks to aggressively engage in small enterprise lending. The banks apparently do not find the FUNDES package of credit guarantee, consultancy, and training, sufficiently attractive to increase their scale of operations. They continue to believe they are being altruistic in working with FUNDES rather

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[8] Reported in private conversations with ACCION representatives.

than seeing small business lending as a source of valuable new business. It is reported that FUNDES is reviewing its program with the possibility of changing its mode of operation.

Determining additionality in lending due to guarantee schemes in the Philippines has been difficult. One study analyzed a private development bank in the Northern Mindanao region that specialized in retail banking (Llanto and Casuga, 1992). In October of 1991, about 15 percent of its outstanding loans were guaranteed through the CALF-PCIC program, one of the guarantees operated by the Comprehensive Agricultural Loan Fund through the Philippine Crop Insurance Corporation. The borrowers were mainly small farmers, mostly share tenants or leaseholders, who could not provide secure titles to real estate that the bank normally required for collateral. Over 300 farmers received guaranteed loans from November 1987 to July 1991. The guarantee alone, however, could not be credited with having made these loans possible. The farmers were part of a contract farming arrangement to produce cassava for a starch manufacturer. The bank's lending program was part of a "systems" approach in which the borrowers received technical information, production inputs, and a secure market. This combination made the borrowers creditworthy to the bank. Even so, about 10 percent of the outstanding loans were considered in default in July 1991. Claims for guarantee payments that had been filed as early as 1989 remained unpaid in February 1992 because of a dispute over documentation between the bank and PCIC.

An earlier study by Magno and Meyer (1988) analyzed how several guarantee programs in the Philippines might have affected the supply of agricultural credit during the early 1980s. The data showed that in this period banks generally decreased agricultural lending relative to other types of loans. Overall the ratio of guaranteed to total agricultural loans rose from less than 2 to 5 percent between 1981 and 1986. The ratio was much higher for medium sized private development banks than for the large commercial banks and, surprisingly, the small rural banks that historically have made many agricultural loans. Since the guarantee schemes also had a rediscounting facility, it appeared that some substitution of fund sources occurred, that is the banks substituted government funds for their own resources. One of the important reasons given for the low participation rate of many banks was the increase in transaction costs, measured by staff time to process loans, that occurred with guaranteed loans. These costs may have been more difficult for the small banks to absorb.

Two Filipino banks that participated in AID's small and medium enterprise guarantee were studied (MSI, Feb., 1990). In this program PRE Bureau guarantees were granted to the Far East Bank and Trust Company (FEBTC) beginning in 1985, and to the Philippine Commercial International Bank (PCIB) beginning in 1988. The majority of the targeted lending was in short-term loans to finance exports or imports by local producers along with a few cases of long-term investment loans. Officials in both banks claimed that the guarantee enabled them to lend to borrowers not otherwise qualified. FEBTC officials estimated that 80 percent of the loans made through this facility would not have been extended because of the borrowers' lack of collateral and the bank's policy of discouraging loans to borrowers without an established credit history. No data or analysis were presented, however, to substantiate these claims.

The conclusion which emerges from the studies summarized in this section is that guarantees have had a mixed record in influencing lenders to make loans they normally would not make without guarantees. There may be cases, such as with ACCION, that lender-borrower relationships developed because of the guarantee so that subsequent loans were made without guarantees. Furthermore, the special circumstances of the affiliates meant that the guarantee and related bank loans contributed in a significant way to the microenterprise loans made by the affiliates. In other cases, however, participation rates by lenders in guarantee programs have been low, presumably because the design of the guarantee was unattractive. In some cases, the credibility of the guarantee facility has been questioned so the lenders were justified in their reluctance to participate. In cases where participation rates are high and large numbers of loans are guaranteed, the amount of additionality occurred has been difficult or impossible to determine. The analysis undertaken to determine the impact of guarantees has usually not been robust enough to produce credible results.

c. Impact on Borrowers

Some critics of the use of credit programs as a means to alleviate poverty argue that it is necessary to evaluate the impact of loans on borrowers. The fact that borrowers borrow and repay is not accepted as sufficient evidence of positive impact. When credit programs are subsidized, the critics believe it is necessary to evaluate the impact of loans relative to more direct methods

of reducing poverty. This line of argument has led to attempts to evaluate the impact of guarantees on borrowers, which really means measuring the impact of the loans received.

Measuring impact on borrowers is even more complex than measuring impact on lenders. The selection of variables to measure in analyzing borrower impact is arbitrary and depends on what the analyst expects the impact to be. At a minimum, the important question would be additionality: did previously rationed applicants actually begin to receive loans and/or larger loans than would have occurred without the guarantee? The second question is whether or not the terms of loans for the target clientele became any softer (less collateral required, lower interest rates, longer terms, and lower transaction costs.). Third, how did the loans actually benefit the borrowers, that is did they produce more, earn a higher income, live better, etc. Fourth, the broadest possible impact analysis would also look at what happens to nonguaranteed borrowers. They might have to pay higher interest rates so lenders can cross-subsidize the losses or the lower returns earned from guaranteed loans. These borrowers may be crowded out if lenders, facing liquidity constraints, allocate their scarce funds to guaranteed borrowers. Furthermore, unsubsidized borrowers have to compete in production and sales with borrowers who receive subsidies through guarantee schemes. Therefore, a complete impact analysis which records as benefits the gains in production, sales and profits attributed to a guarantee should also count as losses or costs the reductions in these same variables registered by nonguaranteed borrowers. Since such a comprehensive analysis is rarely attempted, most impact studies overestimate the benefits of guarantees on the economy as a whole.

The evaluation of the AID small enterprise guarantee in Botswana attempted to gain some insights into borrower impact (MSI, Nov. 1990). Guaranteed borrowers seemed to experience an increase in sales revenue but little additional employment compared to nonguaranteed borrowers in a sample of 20 observations. The evaluations of AID support for the ACCION guarantee also tried to learn something about borrower impact (MSI, 1990; Painter, 1991). Many of the microentrepreneurs who borrowed from ACCION affiliates after the guarantees were granted had been previous customers so no great additionality of borrowers occurred at that stage of the affiliates' growth. Baseline data were unavailable so the evaluators tried to reconstruct the firms' assets, sales, profits and employment before becoming borrowers for comparison with the current

situation. Positive changes were noted in most cases but the evaluators recognized that the results could not all be attributed to the guarantee. Some borrowers claimed that they would not have gotten loans without the ACCION programs nor would their enterprises have performed as well without loans.

The most comprehensive attempts to measure borrower impact have been made in the Philippines. The results are mixed and depend on the specific source of guarantee, the type of lender, the time the analysis was conducted, and the sample of borrowers studied. All the studies lacked benchmark information and were forced to reconstruct missing data for the enterprises or rely on impressions reported by lenders and borrowers. One of the early studies was conducted by Magno and Meyer in 1988. The results showed that processing time for the lenders increased substantially when loans were guaranteed, and this presumably resulted in greater waiting times for borrowers. No information was available to determine if this was due to the guarantee schemes because the lenders were more careful in their lending operations, or if it represented the additional paperwork required for obtaining guarantees.

The case study of the Mindanao development bank conducted in 1992 (Llanto and Casuga) revealed that 14 out of 20 farmers interviewed did not even know that their loans were guaranteed even though they paid guarantee fees. It appeared that the bank made loans to some customers without demanding all the collateral normally required of borrowers. Whether or not this observation could be attributed to the guarantee versus other elements of the systems approach used in this program could not be ascertained.

Bautista (1991) reported on a 1990 survey of a sample of 17 banks serving agricultural clients. These results cast further doubt on the additionality of Philippine guarantee schemes because the majority of the borrowers either had previous relationships with the banks, or the loans were fully secured, or the borrowers possessed good credit relationships. The majority of the banks in this study reported that they would have granted the loans even without the guarantees. The reason that the banks participated, therefore, had more to do with the complementary features of the schemes such as interest subsidies, and liquidity and rediscount features rather than the risk sharing features designed to expand loans to rationed customers. This implies that the lenders captured the guarantee subsidies rather than the borrowers.

The most comprehensive analysis was conducted by Llanto and Magno in 1994. Data were obtained from a survey of borrowers and nonborrowers of three different guarantee programs selected in three regions of the country. The results vary across the programs and regions, but some general patterns emerged. Guarantees did not seem to affect the size of loans received because banks and cooperatives followed a set formula for making production loans. Guaranteed borrowers in some programs were able to get lower interest rates than nonguaranteed borrowers because of the rediscount facilities that some lenders could access in guarantee programs. The transaction costs for guaranteed and nonguaranteed borrowers were similar suggesting that the schemes and/or the lenders had streamlined their procedures compared to results obtained in earlier studies, but waiting times for loan disbursement were still longer for guaranteed loans. Borrowers faced higher costs because of guarantee fees and there may be few offsetting benefits in the form of additionality in lending. The most serious doubts about the impact of these programs were raised concerning the quedan or warehouse guarantee scheme used mostly by commodity traders and millers. The borrowers had sufficient collateral to obtain loans so that improving the acceptability of warehouse receipts as loan collateral could be accomplished more effectively through stricter accreditation and monitoring of bonded warehouses rather than through a credit guarantee for borrowers.

An attempt was also made to evaluate the impact of the PRE guarantee for small and medium enterprises in the Philippines (MSI, 1990). Loan maturities and interest rates were roughly the same for both guaranteed and nonguaranteed borrowers, but collateral requirements were sometimes different. Using lender data and selective borrower interviews, the evaluators conducted an elaborate exercise of reconstructing the performance of borrower firms over time measured in terms of growth in gross revenue, net income, employment, exports, and foreign exchange earnings. The exercise was complicated because the borrowers often kept more than one set of books. The impact of loans on these variables was estimated as a proportion of the observed share of increased liabilities represented by the loans received. These estimates suggested that 5 to 75 percent of the observed changes could be attributed to the guaranteed loans. The evaluators observed, however, that a variety of unmeasured external (for example, general changes in the economy) and internal (for example, improved management skills) factors "caused" the changes

reported in the performance of these firms. They argued for more robust methodologies including comparative analysis with control groups, and for more attention to the evaluation of credit projects on lender behavior and the overall operation of financial markets, and less effort put into assessing impact on borrowers.

The difficulties of measuring borrower impact are further exemplified in a recent evaluation of the U.S. Small Business Administration (SBA) guaranteed business loan program (Price Waterhouse). This study compared a sample of businesses that received SBA guaranteed loans in 1985 with a comparison sample of businesses of similar size and industry but that had never received a SBA loan. The borrowers tended to be newer firms, SBA loans were reported to be used more than commercial loans to start a business rather than expand it, and a higher proportion of the SBA firms were still in business in 1989 compared to the comparison group. No statistical tests were reported so it is unclear if the results are statistically significant, nor is there any discussion about how the survey response rates of 50 to 60 percent may have biased the results. The most important potential bias, however, is that a higher proportion of SBA firms were new compared to the comparison group so the effects of "newness" cannot be separated from the effect of obtaining a guaranteed loan.

The above discussion illustrates the problems in assessing the impact of guarantee programs. The available information based on simple evaluation techniques provides little support for claims that credit guarantee schemes effectively satisfy the objectives of the three participants involved. Nonetheless, several guarantee programs are in place or proposed in several African countries. The next section presents an inventory of credit guarantee programs in Africa.

III. AN INVENTORY OF CREDIT GUARANTEE SCHEMES IN AFRICA

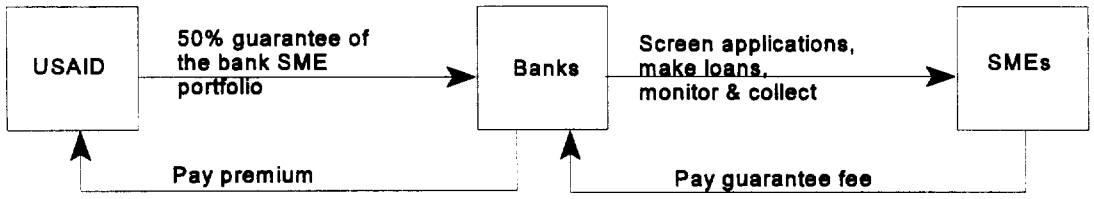
Many guarantee programs in Africa are supported by external agencies. The information presented in this paper is limited to the small proportion of programs for which data could be obtained. While several guarantee programs are supported by national governments, the Loan Portfolio Guarantee (LPG) program is implemented by USAID in several countries. This section first describes the multi-country LPG program, then describes the individual programs identified in each country. A synthesis of these programs concludes this section. The description and analysis of many programs is limited because so little data were available to us.

A. USAID Loan Portfolio Guarantee Program

Under the Micro and Small Business Loan Portfolio Guarantee (LPG) program initiated in 1989, USAID attempts to increase the flow of credit to small businesses and microentrepreneuers by encouraging banks and other private financial intermediaries to expand their lending through risk sharing arrangements. The program extends a 50 percent guarantee to approved financial institutions on the loss of loan principal net of recoveries for loans made in local currency to eligible borrowers.

Figure 8 shows the typical method of operation for the LPG program (USAID, 1995). It is a global guarantee in which all borrowers in a targeted subsector are covered by the guarantee. The participating banks are authorized by their respective central banks to open interest bearing offshore accounts in the U.S. USAID transfers grant funds in US dollars to these accounts. The funds are held as medium term deposits, and are used as guarantee funds. A potential SME borrower desiring a guarantee submits an application to the participating bank. Loan applicants are screened by the bank and those whose projects are evaluated to be viable, but offer inadequate physcial collateral accepted by the bank, are recommended for guarantee coverage, and the loans are dispursed. In the event of default, the bank attempts to recover the amount due on the collateral. Then it submits a claim to USAID for the remaining losses as per the guarantee agreement.

Figure 8: Africa: USAID Program [LPG]



The financial institutions pay USAID the following fees: a facility fee of 0.5 percent per annum of the amount of guarantee authorized by USAID, and a utilization fee of 1.25 percent per annum of the average U.S. dollar value of the guaranteed loan. The banks agree to comply with reporting requirements and participate in credit training programs and evaluations conducted by USAID. Technical assistance provided to the banks is an integral part of the program.

The program has been active in several Asian, Latin American and Middle Eastern countries since 1989. From 1989-1993, the program authorized guarantees in Africa for US$ 15 million to create 14 guarantee facilities in Kenya, Mali, Nigeria, Ghana, Morocco, Uganda and South Africa. However, only 19 percent of the authorized guarantee limit, was utilized by the banks in contrast to a 34 percent utilization rate in Asia [9]. During this period, 1,090 loans were guaranteed and US$ 480,000 was used to settle claims. A subsidy of US$ 260,000 was provided through technical assistance and start up costs (USAID, 1995). The number and volume of loans guaranteed increased in 1994. A total of 3,241 loans were made under this program of which 468 went to first time borrowers (15 percent of the total guaranteed borrowers). The loan volume guaranteed was US$ 52.4 million. The average loan term and loan size under guarantee were 200

[9] These utilization rates do not reflect cumulative use. They are for just one year. Since LPG is a revolving fund, a cumulative utilization rate would be more accurate so these data need to be interpreted with caution.

days and US$ 12,000, respectively. The maximum loan made under the guarantee was US$ 150,000 (USAID, June 1995). Data on default rates and volume of claims settled were not available to the authors, so it was impossible to analyze performance.

The design mentioned above is followed in the LPG programs implemented in several SSA countries. However, programs in Guinea and Egypt follow a slightly different design. They introduced a separate guarantee agency between the USAID and the bank to provide additional support to the banks in screening and monitoring borrowers. These programs are discussed in detail in later sections.

B. Guarantee Schemes in Africa

1. Botswana

- USAID, LPG Program

The LPG program was implemented in 1988 in Botswana to strengthen the capabilities of the commercial banks to expand their lending to the SME sector. Loan guarantees were issued in a maximum of US$ 2.1 million to cover 50 percent of the losses on loan principal made to the SME sector by three commercial banks: Barclays, Standard Chartered and the Bank of Credit and Commerce. In addition, a grant of US$ 50,000 was provided for training the participating banks in SME lending technology.

An evaluation conducted by MSI (Nov. 1990) showed there was limited awareness of the guarantee facility among the participating banks and borrowers. Therefore, the utilization rate has been very low. From 1988 to 1990, only 40 loans were guaranteed in an amount equal to 18 percent of the available guarantee fund. There was little additionality because of the 40 guaranteed borrowers, only 10 were new customers while 30 were previous borrowers; 22 were located in urban areas while 18 were from rural areas. Up to 1990, only one claim had been submitted. An evaluation of 20 borrowers over a period of one year, of which 10 were guaranteed, showed that although guaranteed borrowers achieved an increase in their sales revenue by 76 percent, a relatively small amount of additional employment was created during the reference period compared to non-guaranteed borrowers. The composition of loans placed under the guarantee facility by the participating banks did not truly meet the enterprise criteria set by the project

indicating moral hazard. It was concluded that the project made only a marginal impact on increasing credit accessibility to SMEs at market rates, and on employment generation. It is unlikely that the program will be sustainable after the withdrawal of AID funding. A recommendation was made to streamline the reporting requirements by the banks on sub-borrower information to facilitate future program evaluations.

2. Burundi

- Fonds National de Garantie

The *Fonds National de Garantie*, a portfolio guarantee institution, was started by the Government of Burundi in 1988 to provide guarantees to SME borrowers with insufficient collateral to obtain bank loans. The fund was set up as a limited liability company with a capital of BuF 300 million. Both the Government of Burundi and local banks contribute to and own the fund. The institution is designed to assess individual borrowers and recommend them for bank loans with a 58 percent guarantee to cover loan principal losses. In 1989, the fund received requests to guarantee 17 loans totaling over BuF 1.1 million representing 43 percent of the total loans applied for by SMEs to all banks. But no guarantees were issued. It was suggested that the institution requires technical assistance to evaluate credit risks and manage risky portfolios (USAID, 1989).

3. Cameroon

- USAID, LPG Program

The LPG program began to operate in Cameroon in 1990 through the Caisse Comune d'epargne et d'Investissement to provide 50 percent guarantee coverage on loan principal losses incurred on SME loans. The maximum allowable volume of loans that can be placed under the LPG is US$ 2.0 million. No data were available on the financial performance of the program (USAID, June 1995).

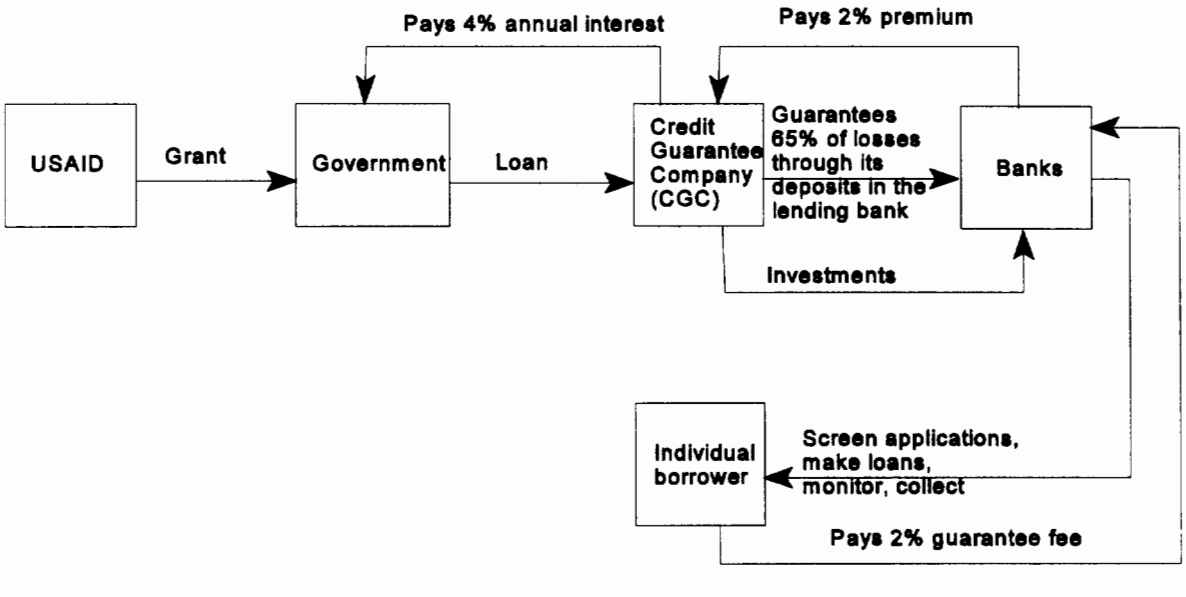
4. Egypt

- USAID Program

This program is a slight variation of the typical USAID LPG guarantee program described above. This program involves the Credit Guarantee Company (CGC), an external guarantee agency set up in 1991. The method of operation is diagramed in Fig. 9. The CGC is operated

through a USAID fund and follows a global approach in guaranteeing loans made to small scale enterprises (SSEs) and new medical practitioners. USAID provides a guarantee fund of US$ 12 million to the Central Bank through the Government of Egypt. The Central Bank then lends the funds to Credit Guarantee Company (CGC) which in turn invests the funds in local banks receiving an annual return of 18 percent. The Central Bank charges a nominal annual interest of four percent to the CGC for the loan, and also requires letters of credit from the local banks that accept the CGC investments. The investments in the local banks function as guarantees for the loans made by the banks to the SSEs. The banks can block CGC deposits against SSE defaults. In case of default, the banks have exposure of less than 50 percent since the CGC and the borrower's collateral cover the majority of loan loss.

Figure 9: USAID Program [LPG] in Egypt



The CGC stipulates that loans should be made to SSEs for 1-2 years for working capital and 5-7 years for investments. The CGC will guarantee up to 65 percent of the losses on loan principal. The banks pay the CGC a premium of two percent of the outstanding guarantees but pass this guarantee fee to the borrowers who also pay an annual interest of 14 percent on the loan outstanding. The CGC has set up a reserve fund to settle claims using the revenues received from the investments, and it amounts to 5-8 percent of the outstanding guaranteed loans. With a current default rate of less than one percent, the fund remains intact. Considering the current fund size and the expected default rate of five percent, it is estimated that the CGC can guarantee loans for about eight times the size of the fund (RG Blaney, 1994).

The CGC started to work with only nine banks in 1991, but 31 banks currently have agreements with CGC to provide loans to SSEs. The credibility of the CGC is high because the funds are actually deposited in the participating banks and can be blocked for payment of claims. A total of 3,188 loans were made to SSEs amounting to LE 331 million from 1991 to 1994, of which LE 150 million was guaranteed by CGC. Only five loans amounting to LE 0.1 million were in default. During this time, the CGC collected LE 2.7 million in fees and earned LE 13 million through investments in banks. The direct and indirect costs of operations accounted for LE 9 million. The ratio of total income over total expenses and defaults worked out to 181 percent indicating the viability of the program.[10]

5. Ghana

- USAID, LPG Program

The LPG program began issuing guarantees in 1990 through the ECO Bank and Continental Acceptances Ltd. for 50 percent of the loan principal losses. The guarantee can cover loans made up to a maximum of US$ 4.0 million (USAID, June 1995). Currently, USAID is evaluating the LPG program in Ghana and the results are not yet available.

- UNDP Program

The Central Region Integrated Development Programme (CERIDEP) funded by UNDP was designed to provide loans for working capital, hire purchase, and loan guarantees for long-

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[10] Estimates prepared by Mike Gudger.

term loans to SMEs. The guarantee program of CERIDEP, started in 1991, works with the development bank. CERIDEP deposits the guarantee fund as collateral in the bank. CERIDEP guarantees 60 percent of the loan principal losses that occur on loans made to SMEs for long-term investments. As of 1993, only one enterprise, a salt manufacturer, had received a guaranteed loan despite the fact that 80 percent of the applicants for CERIDEP financial assistance were for long-term financing. The bank continues to demand high levels of collateral from borrowers to cover its 40 percent risk exposure. The costs of operation have been high due to the limited number of enterprises covered, and are expected to erode the capital base leading to unsustainability. It was recommended that CERIDEP utilize sound financial discipline to recapitalize its funds for a sustainable operation (Bonsu, 1995).

- Women's World Banking (WWB) Guarantee

This program was started in 1989 through the WWB affiliate that works with women's groups. Loans were provided to WWB affiliates by banks using a guarantee provided by WWB in New York. The affiliate in turn lends to members of the groups based on their mutual guarantee. However, anecdotal evidence revealed that the program has had limited impact and is currently inactive (Private conversation with WWB officials).

6. Guinea

- USAID, LPG Program

The Agricultural Loan Guarantee Fund (AMLGF) and Agricultural Marketing Foundation (AMF) were created by USAID to support agricultural projects leading to better marketing and distribution in both domestic and external markets. USAID provides the start up funds and subsidizes the operating costs. AMLGF is registered as a special financial institution under the control of the Central Bank, and is designed to encourage banks to lend to the agricultural sector. It consists of two components: a company managing a guarantee underwriting fund, and a guarantee underwriting fund. AMLGF was expected to be operational by end of 1995, with a grant of US$ 6.0 million, and the first guarantees were expected to be made by December 1995.

Banks are authorized by the Central Bank of Guinea to open interest bearing offshore accounts in New York in the name of the AMGLF. USAID transfers grant funds in dollars to the AMGLF account which provides a medium-term deposit (but not a credit line) in the participating

banks. A loan applicant desiring a guarantee submits applications which are screened by both AMF and the participating bank. Guarantees and loans are issued when consensus is reached between AMF and the banks.

The banks lend at a nominal interest rate of 17 percent which includes guarantee fee. The current inflation rate is close to six percent. The maximum guarantee coverage is 50 percent of a loan's principal value. The borrower must be a member of AMF and provide 25 percent of the value of the project in cash or in kind acceptable to the bank. Credit applicants must be recommended by AMF to the banks. Peer pressure from the AMF is expected to improve loan repayment. The loan approval decision by the bank is made prior to requesting a guarantee from AMLGF. The bank then takes collateral, monitors and collects the loans. Unpaid loan balances of the guaranteed borrowers are referred to the AMLGF for indemnity.

In addition to the AMLGF, a Small Credit Facility (SCF) was established with US$ 1.0 million of fixed deposits made in two local banks as a guarantee against small, short term loans made at an interest rate equal to the local T-bill rate plus a five percent margin. The fixed deposits in the banks guarantee 50 percent of the loan losses. In addition, the AMF to which farmers are members helps screen the borrowers.[11] The program is operational and loans are being made but no financial data are yet available on the program so further analysis was impossible (Conley, 1995; Reddy, 1995; Welsh, 1995).

The above programs were designed based on lessons learned from the currently inactive guarantee program, Bureau of Assistance for Displaced Public Workers (BARAF), implemented by the Government of Guinea. BARAF was started in 1987 to provide an 80 percent guarantee on the principal of loans made to displaced civil workers. By 1990, 400 loans were guaranteed but the default rate was 55 percent of the loan volume. This program eventually failed because of the high administrative costs, and the high guarantee level provided no incentives for banks to screen and monitor borrowers effectively, and for borrowers to repay the loans. Currently, the

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[11] The reason for the AMF screening is not clear. Perhaps it is hoped that it will use its information about its members to sort out good from bad borrowers.

Central Bank is trying to organize a "Fonds de Soutien" as a guarantee fund to facilitate banks to lend to small farmers. The terms of the program are not yet finalized (Conley, 1995).

7. Ivory Coast

- USAID, LPG Program

This program began operating in 1989 to extend a 50 percent guarantee coverage on loan principal losses for a maximum of US$ 1.0 million in loans extended to SMEs through Citibank (USAID, June 1995).

8. Kenya

- USAID, LPG Program

The LPG program in Kenya is implemented through Standard Chartered, Diamond Trust of Kenya Limited, Middle Africa Finance Company Limited, Barclays Bank of Kenya, Kenya Equity Capital Limited, Thabiti Finance Company Limited and Banque Indosuez. The program began operating in 1989 to provide 50 percent guarantee coverage on SME loans not to exceed a total volume of US$ 14 million (USAID, June 1995).

- Women's World Banking (WWB) Guarantee

A WWB guarantee program is currently in operation through an affiliate, the Kenya Women's Finance Trust, to guarantee commercial bank loans made to women borrowers who show the potential to graduate to non-guaranteed loans (Private conversation with WWB official).

9. Mali

- USAID, LPG Program

The LPG program was started in 1990 to extend 50 percent guarantee coverage of the loan principal on a maximum of a US$ 1.0 million in loans extended to SMEs through the Bank of Africa (USAID, June 1995).

- Voluntary Departure Program (VDP)

This program was started in 1986 by the Government of Mali. The program offers a 50 percent guarantee coverage on principal losses incurred on loans made to borrowers affected by the voluntary retirement program for civilian workers retrenchment. By 1990, even though six percent of the VDP participants applied for bank loans and qualified for guarantee coverage, only two percent received loans. The bankers insisted on high levels of collateral in addition to the

guarantee coverage. Low liquidity in the banking system and the relatively low level of guarantee coverage compared to high default losses and administrative costs were reported by bankers as reasons for the low utilization of the guarantee program (Stearns, 1993).

10. Morocco

- USAID, LPG Program

Initiated in 1990 through the Development Bank and the Wafabank, the LPG program guarantees 50 percent of the loan principal losses incurred on a maximum of US$ 16 million in loans made to SMEs (USAID, June 1995).

11. Nigeria

- USAID, LPG Program

The LPG program was implemented in 1990. It provides a guarantee cover of 50 percent of loan principal losses. A maximum amount of US$ 6.0 million in loans to the SME sector is covered under the program. The participant banks include Chartered Bank Limited, the Investment Banking and Trust Company Ltd., and the Meridian Equity Bank (USAID, June 1995).

- Government of Nigeria: Agricultural Credit Guarantee Scheme (ACGS)

The Agricultural Credit Guarantee Scheme was initiated in 1977 to facilitate small farmer access to bank loans to stimulate agricultural production. A capital fund of N100 million was authorized and placed in the Central Bank. Under this scheme, up to 75 percent of losses on principal and interest on loans advanced by commercial banks for agricultural production are guaranteed. The maximum size of loan that can be guaranteed is N50,000 for a loan made to an individual and N1 million on loans to cooperatives. The banks using the guarantee mechanism are required to lend at a highly subsidized nominal annual interest rate of four to six percent. The banks appraise the loan applicant before recommending guarantee coverage by the fund. Upon approval of the guarantee, the banks issue the loans. In the event of default, the banks collect the loans through collateral liquidation, and submit claims to the fund for the uncollectible loan principal and interest.

Several studies (Aku, 1986; Gudger, 1991; Njoku and Obasi, 1991; Siebal, 1995) of the ACGS concluded that although there has been an increase in financing to the agricultural sector, the overall impact of the program has been minimal. The volume of loans guaranteed annually by

the program, at 1987 constant prices, increased from US$ 9.5 million in 1978 to US$ 25 million in 1987, and averaged US$ 19 million per year for the 1977-1988 period. The number of loans guaranteed per year increased from 9,400 in 1978 to about 25,000 in 1987. The composition of the loans guaranteed changed from poultry in the early years to small loans for agricultural production in later years. The share of commercial bank lending to agriculture increased from 4.6 percent in 1978 to 8.2 percent in 1983. The increase, however, can be attributed to the government's mandatory allocation of eight percent of commercial bank lending to the agricultural sector rather than to ACGS. The majority of the guaranteed borrowers were large farmers. The portion of total agricultural lending covered by guarantees was only 11 percent between 1980-1983.

The cumulative default rate has been very high. The poor repayment rate on guaranteed loans was attributed to low output and poor profits of the enterprises funded. In 1988, claims were made against the guarantee for US$ 29 million, but the fund paid the banks only US$ 0.7 million. These high default rates and the low payout by the fund are poor incentives for bank participation. The screening of borrowers placed under guarantees was lax and monitoring was minimal. The loans were disbursed on an untimely basis and little effort was exerted to collect them. The administrative costs of settling guarantee claims has been very high. It is estimated that the cost of operating the scheme (not including losses) has been nearly US$ 6.5 million over the 1978-1988 period representing 3.4 percent of the value of loans guaranteed. The high rates of default, inflation and administrative costs have caused the fund to shrink in size despite a interest income on investments of US$ 30.4 million.

12. South Africa

- USAID, LPG Program

Six South African banks - the Future Bank Limited, the Standard Bank of South Africa Ltd, the First National Bank, the Nedcor Bank Ltd., the Community Bank and the ABSA Bank Limited - participate in the LPG program which began operations in 1992 to extend loans to SMEs. A maximum loan portfolio of US$ 12 million is authorized for guarantees of 50 percent of the losses incurred on loan principal (USAID, June 1995).

- Small Business Development Corporation (SBDC) Scheme

The SBDC has initiated two schemes to guarantee loans made by banks to SMEs: (i) the standard scheme, and (ii) the emergent entrepreneur scheme. Under the standard scheme, 60 percent of the loan principal losses on loans made to individuals are guaranteed. The maximum amount of aggregate loan that banks can make under this program is R400, 000 (US$ 900,000 as of 1995 exchange rates). The banks pay an annual premium equal to 1.5 percent of the outstanding guarantees. The borrowers are required to offer collateral worth 50 percent of the loan granted. The emergent entrepreneur scheme guarantees 70 percent of the principal losses on a maximum loan amount of R50,000 (US$ 10,900) made to an emerging entrepreneur. A fixed fee of 2.5 percent per annum of the outstanding guarantees is charged as a premium to the banks (Development Bank of South Africa, 1995).

- Get Ahead Foundation (GAF)

A collateral fund was deposited by the NGO, GAF, in the Standard Bank in 1990 to induce the bank to lend to SME clients appraised and recommended for loans by GAF. The deposits are a 100 percent guarantee coverage for losses of principal incurred on loans made to SME borrowers at the recommendation of GAF. The bank pays a fee to GAF of 10 percent of the volume of loans made to GAF clients for its services in recommending clients, providing guarantee coverage and monitoring. Successful borrowers from GAF's Business Loan Program, which complements its Stokvel program that provides loans to microentrepreneuer groups, are recommended for loans under the guarantee program.

By the end of 1991, 373 borrowers had received loans under the guarantee program. However, default was high and the bank drew 18 percent of the collateral fund to meet the guarantee claims. The poor methodology used by GAF to evaluate applicants, and the poor monitoring of loans and lack of incentives for borrowers to repay led to the high defaults. The bank now lends only an amount equal to the collateral fund. If the high default rates continue, the fund is expected to decapitalize very soon (Stearns, 1993).

13. Swaziland

- USAID, LPG Program

The LPG program of USAID provided the Small Business Growth Trust (SBGT) in 1994 with a guarantee of US$ 0.5 million to enable it to lend up to US$ 1.0 million to SMEs under guarantee coverage. The Program has not yet been implemented (USAID, June 1995).

- The Government of Swaziland Guarantee Schemes

To increase the flow of formal credit to risky sectors including exporters and small businesses, the Government of Swaziland established two guarantee programs in the Central Bank: (i) the Small-Scale Enterprise Loan Guarantee Scheme in 1990, and (ii) the Export Finance Loan Guarantee Scheme in 1991. A refinance facility allows commercial banks that experience liquidity problems to rediscount loans guaranteed under the export finance scheme with the Central Bank at the rediscount rate. The guarantee programs automatically cover the loans made to the targeted sector.

The Small Scale Loan Guarantee Scheme guarantees 75 to 80 percent of the principal loan losses incurred by commercial banks in lending to small scale entrepreneurs. As of 1994, guarantees worth E5.4 million (US$ 1.18 million at the 1995 exchange rate) were outstanding and the total claims paid were E0.1 million (US$ 20,000). The program is currently able to cover its annual claims (E0.1 million: US$ 20,000) and expenses (E0.2 million: US$ 40,000) out of its annual income from premium and investments (E0.35 million: US$ 70,000). However, in previous years expenses and claims exceeded income (Central Bank of Swaziland, 1995).

The Export Finance Guarantee Scheme guarantees up to 75 percent and 85 percent of pre-shipment and post-shipment loans, respectively. Only about 0.9 percent and 1.3 percent of total exports in 1992 and 1993, respectively, were covered under this scheme. Although the defaults on loans guaranteed through these schemes have been low, large provisions have been made for future losses which implies the risky nature of the enterprises financed (Meyer and Nagarajan, 1994).

From the beginning of these two guarantee programs up to September 1994, out of 427 loan applicants, 276 were issued guarantees for a sum of E5.8 million (US$ 1.28 million). While 103 guaranteed borrowers repaid their loans, two borrowers defaulted completely and claims of

E 0.3 million (US$ 70,000) were paid, and E0.2 million (US$ 40,000) in guaranteed loans for 14 borrowers were placed under claims in suspense. The default rate works out to nine percent. The overall repayment rate for all types of loans, guaranteed and unguaranteed, made by commercial banks was reported to be 81 percent (Central Bank of Swaziland, 1995).

In general, the commercial banks are reluctant to utilize the guarantee facilities because they can obtain 100 percent collateral from their borrowers compared to only a 75-85 percent coverage from the guarantees. In addition, participation in the schemes and the settlement of claims involve tedious and expensive procedures. There appears to be little additionality from these schemes in the form of an increased number of loans or larger sized loans to risky enterprises.

14. The Gambia

- Government of The Gambia Guarantee Program

In the 1980s, the government of The Gambia provided automatic guarantees of up to 80 percent of the principal and interest losses incurred on loans made to SMEs by the Indigenous Business Advisory Service (IBAS) and The Gambia Commercial and Development Bank (GCDB). However, the claims for indemnities for defaulted loans were never honored. The Gambian government has now stopped issuing guarantees and has signed commitments with donors not to sponsor any guarantee programs (Graham, Meyer and Cuevas, 1993).

- Women's World Banking (WWB)

A guarantee program through the WWB affiliate to provide loans to women entrepreneurs was terminated due to lack of response from the commercial banks (Private conversation with WWB official).

15. Tunisia

- USAID, LPG Program

This USAID program was implemented in 1990 with a guarantee coverage of 50 percent of the losses incurred for a maximum of US$ 8 million in loans made to SMEs. The participating banks include the Arab Tunisian Bank, the Credit Foncier et Commerce, and the Banque Internationale Arabe de Tunisie (USAID, June 1995).

16. Uganda

- USAID, LPG Program

The LPG program has been operating since 1991 through Standard Chartered, the Nile Bank, and the Equator Bank Limited to cover 50 percent of the losses of principal on a maximum of US$ 3.0 million in loans disbursed to the SME sector (USAID, June 1995).

- Export Credit Guarantee Scheme in Uganda

The Export Credit Guarantee Scheme of the Bank of Uganda was implemented in 1991 to guarantee short term loans made by commercial banks to exporting enterprises. The scheme automatically guarantees 80 percent of the principal and interest losses on loans made to exporters. A guarantee fee of 1.5 percent per annum of the amount of outstanding loans guaranteed is charged to the banks. The bank can pass on these charges to the borrower. As of 1995, no export loans made by the commercial banks had been guaranteed because claims could not be met since the fund had no paid up capital to cover the losses (Bank of Uganda, 1991; Nguyen, 1995).

An evaluation made of the program concluded that the automatic guarantee coverage of 75-80 percent of losses would induce adverse selection by banks, and that the guarantee fee of 1.5 percent would not adequately cover future indemnities and operating costs (Gudger, 1995).

Currently, the government is planning a credit guarantee scheme for medium and long term loans made by commercial banks to cotton farmers. So far the commercial banks have been reluctant to participate in the discussions. The existing legislation for foreclosing collateral and interest rate ceilings may not be conducive for developing a viable self-sustaining credit guarantee operation.

C. Credit Guarantee Schemes in Africa: A Synthesis

The country profiles summarized above reveal that many credit guarantee schemes have been created in Africa. We have been able to identify 20. Undoubtedly, many more exist and/or have been terminated. Several guarantees for SME lending have been funded by donors. A few African governments have created programs to guarantee loans made to the agricultural sector and non-traditional exporters. Most of the guarantees are fairly new and little information exists to evaluate their performance. This section presents a synthesis of these guarantee programs based

on the brief inventory presented above. The main characteristics of the 20 programs studied are summarized in Tables 3 and 4. Several implications are derived from this information.

1. **Paucity of data**. Little in-depth analysis has been conducted of these guarantee schemes. The lack of data makes evaluation difficult. The data available seldom provides information about the financial performance of the guarantee programs. The lack of information is due in part to the poor records maintained by many participating agencies, and a reluctance by lenders and guarantors to reveal information. This reluctance probably reflects a desire to conceal poor performance or failure.

2. **Multiplicity of credit guarantee programs**. Several credit guarantee programs exist and are implemented by donors and governments with various types of approaches and designs. Of the programs for which information is available, the USAID LPG program is most prominent. Acedotal evidence indicates a lack of coordination among guarantee programs operating in a country. Variations in design and implementation cause confusion, externality problems, and increase the cost of operations because of the small scale of operations.

3. **Several programs were terminated without making any significant number of guarantees.** The examples include the government programs implemented in The Gambia, Burundi, and an NGO program in South Africa. Poor performance can be attributed in part to weak designs that provided few incentives for banks to participate, and to poor implementation leading to high costs and defaults that eroded the guarantee funds.

4. **Where guarantee schemes have been relatively active, they make little impact**. None of the documentation available suggests significant additionality in terms of loans made or graduation of borrowers attributable to the guarantees. Several programs guaranteed only a small number of loans relative to the total loans made to the target sector. In Swaziland, for example, fewer than one percent of the loans extended to the targeted export sector were guaranteed by the government program.

Table 3: Inventory of Guarantee Schemes in Africa by Guaranteeing Agency, Target Sector, Approach and Design.

Country	Guarantee agency	Year started	Target sector	Approach	Design	Screening	Monitoring	Collection
Botswana	USAID	1988	SME	Selective	One-stage	Banks	Banks	Banks
Burundi	Government: Fonds National de Garantie	1988	SME	Selective	One-stage	Guarantor	Guarantor and banks	Banks
Cameroon	USAID	1990	SME	Global	One-stage	Banks	Banks	Banks
Egypt	USAID	1991	SME	Global	One-stage	Banks	Banks	Banks
Ghana	USAID	1990	SME	Global	One-stage	Banks	Banks	Banks
Ghana	UNDP (CERIDEP)	1991	SME: Long-term financing	Global	One-stage	CERIDEP and Development Bank	Development Bank	Development Bank
Guinea	USAID	1995	Agricultural sector	Selective through AMF	Two-stage	AMF and Banks	Banks	Banks
Guinea	Government	1995	Agricultural sector	Global	One-stage	Banks	Banks	Banks
Ivory Coast	USAID	1989	SME	Global	One-stage	Banks	Banks	Banks
Kenya	USAID	1989	SME	Global	One-stage	Banks	Banks	Banks
Mali	USAID	1990	SME	Global	One-stage	Banks	Banks	Banks
Morocco	USAID	1990	SME	Global	One-stage	Banks	Banks	Banks

(cont.)

Table 3: Inventory of Guarantee Schemes in Africa by Guaranteeing Agency, Target Sector, Approach and Design. (cont.)

Country	Guarantee agency	Year started	Target sector	Approach	Design	Screening	Monitoring	Collection
Nigeria	Government: Agricultural Credit Guarantee Scheme (ACGS)	1977	Agricultural sector	Global	One-stage	Banks	Banks	Banks
South Africa	USAID	1992	SME	Global	One-stage	Banks	Banks	Banks
Swaziland	USAID	1995	SME	Global	One-stage	Banks	Banks	Banks
Swaziland	Government: Small Enterprise Loan Guarantee Scheme	1995	SME	Global	One-stage	Banks	Banks	Banks
Swaziland	Government: Export Finance and Loan Guarantee Scheme	1991	Non-traditional exporters	Global	One-stage	Banks	Banks	Banks
The Gambia	Government (terminated)	1980	SME	Global	One-stage	Banks	Banks	Banks
Tunisia	USAID	1990	SME	Global	One-stage	Banks	Banks	Banks
Uganda	USAID	1991	SME	Global	One-stage	Bank	Bank	Bank

Table 4: Fund Size, Guarantee Coverage, Premium Rate and Performance of Guarantee Schemes in Africa.

Country and guarantee agency	Fund size/ Maximum portfolio covered	Guarantee coverage	Premium rate per annum	Guarantees outstanding	Guarantee claims paid	Default rate
Botswana: USAID, LPG	US$ 1.0 million	50% of loan principal losses	1.5% of outstanding guarantees	40 loans (1988-1990)	One default (1988-1990)	na
Burundi: government	BuF 300 million	58% of loan principal losses	na	None	None	None
Cameroon: USAID, LPG	US$ 1.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Egypt: USAID, LPG	US$ 12.0 million	65% of loan principal losses	2% of outstanding guarantees	LE 150 million (1991-94)	LE 0.1 million (1991-94)	5% of outstanding guarantees (1991-94 average)
Ghana: USAID, LPG	US$ 2.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Ghana: UNDP	na	60% of loan principal losses	na	One loan	None	None
Ivory Coast: USAID, LPG	US$ 0.5 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Kenya: USAID, LPG	US$ 7.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Mali: USAID	US$ 0.5 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Morocco: USAID, LPG	US$ 8.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na

(cont.)

Table 4: Fund Size, Guarantee Coverage, Premium Rate and Performance of Guarantee Schemes in Africa. (cont.)

Country and guarantee agency	Fund size/ Maximum portfolio covered	Guarantee coverage	Premium rate per annum	Guarantees outstanding	Guarantee claims paid	Default rate
Nigeria: USAID, LPG	US$ 3.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Nigeria: Government	US$ 12.2 million	75% of loan principal and interest losses	None	US$ 25 million (1988)	US$ 0.7 million (1988)	15% of guaranteed volume (1988)
South Africa: USAID, LPG	US$ 12 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
South Africa: SBDC, Emergent Entreprenuer Scheme	na	70% of loan principal losses on a maximum loan of R 50,000	2.5% of outstanding guarantees	na	na	na
Swaziland: USAID, LPG	US$ 0.5 million	50% of loan principal losses	2% of outstanding guarantees	Not yet operating		
Swaziland: Small Scale Loan Guarantee Scheme	na	75-80% of loan principal losses	na	E5.4 million (as of 1994)	E0.1 million (as of 1994)	na
Swaziland: Export Finance Guarantee Scheme	na	75-80% of loan principal losses	na	na	na	na
The Gambia: Government	na	80% of loan principal and interest losses	na	na	na	na
Tunisia: USAID, LPG	US$ 4.0 million	50% of loan principal losses	2% of outstanding guarantees	na	na	na
Uganda: Export Guarantee Scheme:	na	80% of loan principal and interest losses	1.5% of outstanding guarantees	None	None	None

Some loans have been guaranteed under the USAID LPG program. It is impossible, however, to attribute the loans made solely to the guarantee since technical assistance is offered under the program. It appears that technical assistance must be combined with guarantees to entice banks to participate especially when the guarantee coverage is low. It is unclear, therefore, how to measure the attribution of the guarantee versus the technical assistance. Banks continue to be prudent in their lending practices, especially in terms of collateral requirement, in spite of loan guarantees.

5. Most guarantee programs follow the global approach. As shown in Table 3, the majority of the programs follow the global approach. It has several advantages: reduces the cost of operations for the guarantor, provides authority to the banks to screen borrowers, creates a direct relationship between borrower and bank so the bank learns about its clients, and diversifies risk for the lender since both high and low risk borrowers are guaranteed. High risk borrowers cross subsidize lower risk clients, and increase the total volume of loans guaranteed. The global approach has some problems. Although the guarantor's cost of operation is reduced, this is not the case for the lender. The lender has to incur the regular screening, monitoring and loan collection costs, and small loans to risky clients generally involve high transaction costs. When the transaction costs and risks are high for lending to targeted clients, the lenders will refuse to participante in guarantee programs. In addition, there is the problem of double moral hazard and adverse selection because lenders may be lax in loan screening, monitoring and collection knowing that the guarantee will cover part of any losses. This problem can lead to high defaults which eventually erode the guarantee fund. Unless it is assumed that the banks are reluctant to damage their good reputations by making poor loans, moral hazard and adverse selection problems are hard to control in global guarantees.

6. Most programs are designed as one stage. Table 3 indicates that most programs used the one-stage design which avoids cumbersome procedures due to the layering of several guarantors. The one-stage guarantee, however, permits a lower degree of leveraging in terms of amount of loans guaranteed with the available guarantee fund. For instance, the USAID LPG program is leveraged by banks up to two times, while several government programs are leveraged

by less than 1.2 times. The higher leveraging possible in the USAID program is due to the low guarantee coverage offered.

7. Many schemes are not sustainable without continuous subsidization. Operating costs and losses often exceed the income earned by guarantee programs. Premium rates are too low to cover claims and administrative costs. In Egypt, for example, the annual premium rates are fixed at two percent of the outstanding guarantees, while the claims represent five percent of the outstanding guarantees. However, it will be difficult to pass higher premium rates on to borrowers, and higher borrowing costs may induce only the riskiest borrowers (adverse selection) to apply for guarantees.

Several of the governmental programs have been designed on an ad-hoc basis. Table 4 shows that they involve high guarantee coverage, (up to 80-100 percent of principal interest losses), which creates few incentives for the banks to make good loans, monitor them, and vigorously pursue repayment. Obviously, high default rates should be expeted for these programs. The cleareset example is the Nigerian Agriculture Credit Guarantee for which high administrative costs and default rates have decapitalized the guarantee fund. The only way these programs can continue to exist is by refusing to pay indemnities for failed loans.

8. Government guarantees are not considered credible. The majority of government programs are unable to meet claims on a timely basis. Again, the clearest example cited is Nigeria. Delays and failure to pay indemnities destroy the credibility of these programs and explain limited participation rates by lenders.

9. Many guarantee programs are quite new. Since many programs are quite new, it is premature to determine if eventually they will survive and have a positive impact or will fail and disappear. It is fair to say that experience to date has been far from promising.

It is possible that the guarantee experiences in Asia and Latin America offer lessons for Africa. The next section, therefore, describes selected guarantee programs in these regions with the objective of deriving implications for Africa.

IV. SELECTED CREDIT GUARANTEE PROGRAMS IN ASIA AND LATIN AMERICA

A. Latin America

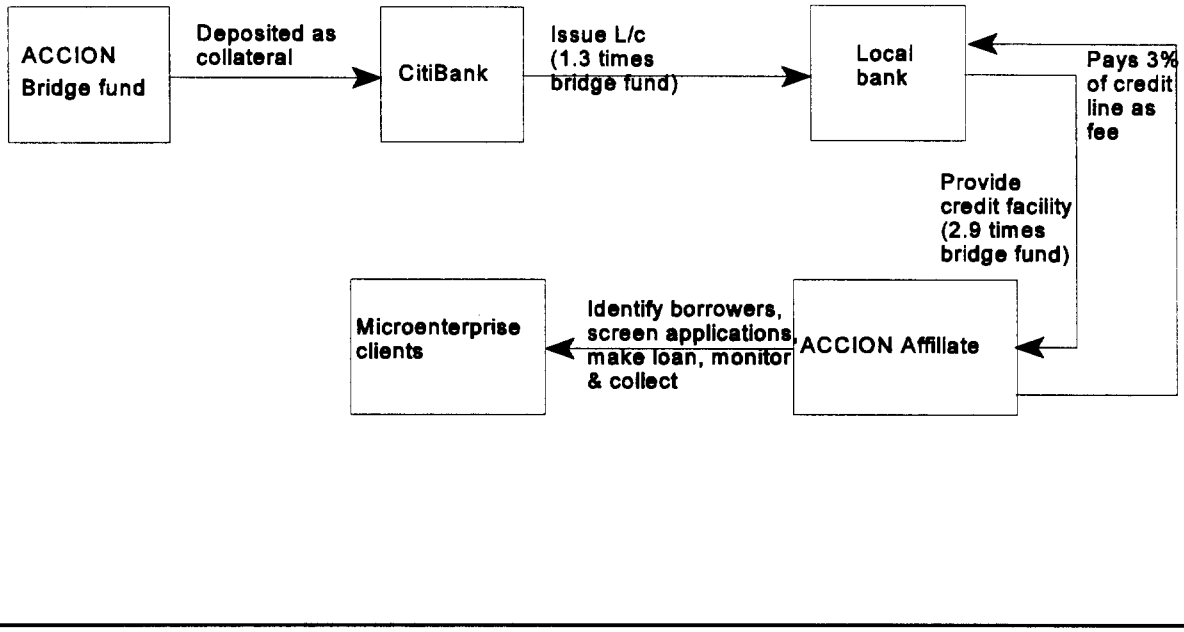
1. ACCION International

During the early 1980s, there was a growing demand from ACCION affiliates in Latin America for capital to fund their microloan portfolios. The local banks considered it too risky to finance non-governmental organizations engaged in microlending. Therefore, a Bridge Fund was created in 1984 by ACCION International as a credit guarantee fund to enable its affiliates to access loans from local banks (ACCION International, January 1995).

The operation of the program is diagramed in Figure 10. The Bridge Fund was capitalized with loans, especially from USAID for US$ 1.0 million, and donations from individuals and institutions, and was deposited in a trust in Citibank for investments in bonds. The proceeds from the investments cover the interest payments made to the Bridge Fund lenders. The assets in the Bridge Fund are used as collateral for guarantees made for standby letters of credit issued by Citibank in favor of local banks. The letters of credit currently guarantee from 20 to 90 percent of the loans extended by the local banks. The local banks, backed by the letters of credit, make lines of credit available to ACCION affiliates to make microloans at market rates. The affiliates pay the banks a premium equal to three percent per annum of the line of credit received. The banks, on the other hand, pay no premium for the guarantee given by the Bridge Fund.

The Bridge Fund is designed to leverage local funds. Each loan to the Fund is leveraged at three levels. Currently, for every dollar invested by the Bridge Fund in Citibank, a letter of credit is offered by Citibank for $1.30 to the local bank which then extends a credit line ranging from $2.25 to $2.90 to the local affiliate. With an average loan term of four months, one dollar in the Fund helps to provide a maximum of $8.80 per year in microloans which represents high leveraging of the initial investment.

Figure 10: ACCION Guarantee Program



Any losses incurred are absorbed through three layers of reserve funds. The first is the Associate Program Loan Loss Reserve. Each ACCION affiliate is required to maintain a local loan loss reserve of no less than two percent of outstanding loans. The exact percentage is based on the associate's historic loan loss record and estimated future losses, but usually ranges between two percent and five percent. The second is the Latin America Bridge Fund Loan Loss Reserve. ACCION keeps its own loan loss reserve in the U.S. equal to five percent of the Fund's outstanding letters of credit. The third is represented by the pooling of loans made to the Latin American Bridge Fund. All loans made to the Fund are pooled so no one loan collateralizes a particular letter of credit. Therefore, losses not covered by the Fund's Loan Loss Reserve Funds will be shared by all lenders to the Bridge Fund.

As of December 1994, the Bridge Fund had issued $6.25 million in guarantees in the nine Latin American countries of Argentina, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay and Peru. The ACCION affiliates have issued a total of 400,000 loans (57 percent female borrowers), including 150,000 new borrowers, amounting to US$ 209.5 million. The assets of the Bridge Fund have grown significantly to $5.9 million in December 1994. With an average loan repayment rate of 98 percent, no claims have yet been made by the affiliates to the Bridge Fund. The small losses incurred in Ecuador were paid through the Ecuador program's reserve funds (ACCION International, Winter 1995). To avoid duplication of services, ACCION currently co-guarantees with FUNDES in Colombia. Both agencies share the risks in guaranteeing loans to the SME sector.

The ACCION program appears to have several positive indicators. Participation by commercial banks has been high as reflected in the number of loans made and the high leverage of the guarantees. The administrative cost for the Fund and the banks is low since the affiliates bear the costs of screening and monitoring the borrowers and collecting the loans. Since the Fund has a close relationship with its affiliates, moral hazard is minimized.[12] Otherwise, the chances for triple moral hazard and adverse selection that arises at the bank, affiliate and borrower levels would be high. However, banks learn little about making direct microloans since they primarily lend to the affiliates.

2. FUNDES Guarantee Program

FUNDES is a privately financed Swiss foundation that assists small and microentrepreneuers (SMEs) in Latin America through direct loans, loan guarantees and technical assistance. The first guarantee program was started in Panama in 1984 and was later expanded to include several other Latin American countries. FUNDES currently operates loan guarantees in Argentina, Bolivia, Chile, Colombia, Costa Rica, Guatemala and Mexico.

The present guarantee scheme of FUNDES is an external guarantee in the form of a fund that uses a selective approach to guarantee individual loans. In some countries, a single stage

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[12] Anecdotal evidence suggests, however, that the ACCION affiliate in Colombia is having severe problems in making and recovering loans to microclients, and has made large claims on the ACCION guarantee.

design is used wherein FUNDES provides a 50 percent guarantee on SME loan principal losses incurred in direct lending by commercial banks (see Fig. 11). In other countries, the scheme is a two stage guarantee which guarantees commercial banks for financing NGOs that lend to SMEs. The commercial banks are guaranteed by FUNDES for 50 percent of the NGO defaults (see Fig. 12). In both designs, however, FUNDES is directly involved in screening and monitoring borrowers, and collecting loan payments. It also provides technical assistance to the SME clients in the preparation of business plans and the documentation for loan applications. A "stop loss" cover built up through contributions from participating banks is also maintained as a reserve to cover systemic risks and thereby ensure the long term viability of the guarantee fund (Holden, 1994).

Figure 11: FUNDES: Direct Lending by Commercial Banks.

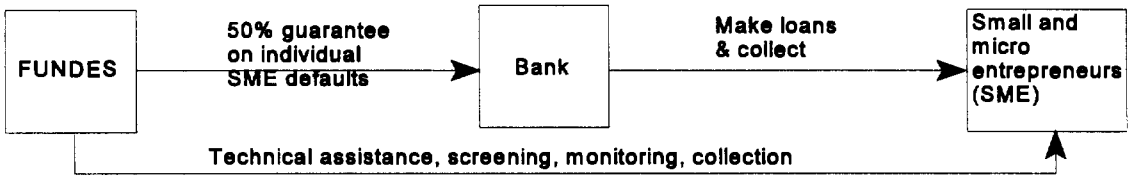


Figure 12: FUNDES: Lending through Affiliates.

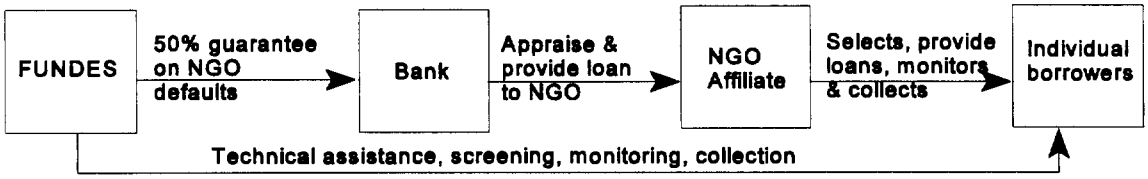
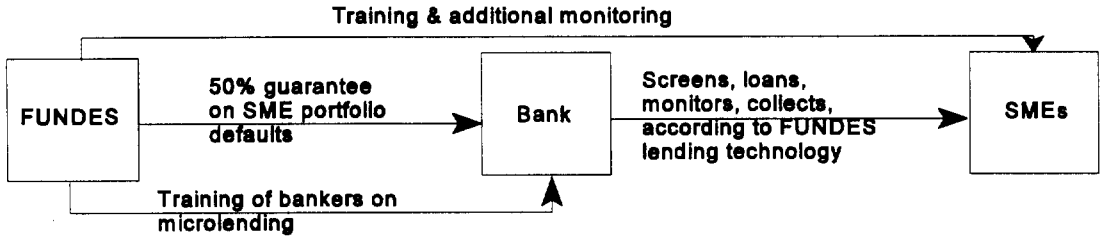


Figure 13: FUNDES: Proposed design for Guarantee Scheme.



Up to 1992, FUNDES had guaranteed over 2,200 loans amounting to US$ 14 million in the six countries of Panama, Costa Rica, Guatemala, Colombia, Bolivia and Chile. The loan default rate was 2.5 percent excluding Panama and 18.5 percent with Panama. Losses to the guarantee fund were 0.09 percent excluding Panama and 1.63 percent overall. FUNDES had also trained 1,700 entrepreneurs in management.

Since 1992, another 6,000 individual loans were guaranteed and provided technical assistance by FUNDES. The loan loss ratio against outstanding guarantees has been reported to be less than one percent, but the program has been expensive and time consuming. The costs per US dollar of loans guaranteed by FUNDES ranged from US$ 0.04 to 0.31 across countries and over time. The program is also limited in its outreach due to the large amount of time it takes to screen, process and follow-up on individual clients. The heavy involvement of FUNDES requires it to have adequate financial expertise to appraise SME loans. In addition, the banks do not seem to be enthusiastic in lending to microclients. Therefore, FUNDES has proposed to shift to a global approach in its new guarantee schemes (Oehring, 1995).[13]

The new proposed FUNDES approach is diagramed in Fig. 13. In the proposed global approach, the role of FUNDES would shift from selecting and underwriting individual loans to guaranteeing a portfolio of target borrowers. FUNDES would guarantee 50 percent of all loans made to borrowers belonging to a target group if the lenders follow the microlending technology developed by FUNDES in screening and monitoring borrowers. FUNDES will continue to provide technical assistance to SME borrowers who will be charged two to four percent of the guaranteed sum for these services. In addition, FUNDES will continue to monitor the borrowers and will charge them a flat rate of 3.1 percent of the loan amount. The banks will pay commissions and premiums to FUNDES but these costs can be passed on to borrowers through interest rates. The banks are required to maintain a catastrophic reserve equal to ten percent of the outstanding guarantees provided by FUNDES. The borrowers are required to provide personal

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[13] There are suggestions that FUNDES may set up its own banks that will lend to microclients and will be guaranteed by FUNDES.

guarantees and collateral of at most the amount of loan which will act as a counter guarantee to the banks and reduce moral hazard on part of the borrowers[14] (Oehring, 1994).

It is expected that the global approach will expand the client base and the volume of loans guaranteed plus reduce FUNDES costs of operation and enable the banks to learn microlending. Furthermore, it is hoped that by guaranteeing a complete portfolio there will be an expansion in the client base, and some low risk clients will cross-subsidize the losses incurred in serving higher risk borrowers. In general, guarantee programs work well only when there is a large client base consisting of both low and high risks. Some good risks will always continue taking guarantees for they are risk averse. However, it is not clear if incentives exist for good risks to continue taking guaranteed loans once they establish good relationships with the banks and qualify for non-guaranteed loans. In addition, guaranteeing an entire portfolio subjects the fund to losses due to risks in covariance in incomes, especially if many loans are made for similar economic activities operating in a small geographic location.

Whether it is a global or selective approach, the FUNDES program has several strengths. It standardizes loan appraisal and monitoring procedures. With modest donor help and guarantee fees, incomes are adequate to cover the costs incurred by the bank and FUNDES. The borrowers, banks and FUNDES are liable for losses so moral hazard problems are reduced at all levels. The technical assistance provided by FUNDES enhances the success of borrowers and improves their creditworthiness. The stop loss cover maintained as a reserve in FUNDES through contribution from participating banks acts as a cover against systemic risks and this helps ensure long term viability of the fund.

The program, however, has some drawbacks. There is limited leveraging by banks that use the FUNDES guarantee in lending to SMEs. For every dollar lent, FUNDES guarantees $0.50 on the losses; therefore, the leverage ratio is two. If the volume of loans to SMEs is to increase, FUNDES has to increase its capital base substantially because of the limited leverage. The scheme using the selective approach also assumes that FUNDES has better information about lending to

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[14] Several sources report that banks in Latin America normally insist on a collateral to loan ratio of over 200% in cases with no external guarantees (Nagarajan and Meyer, 1995).

SMEs than banks. This requires staff well trained in banking practices in FUNDES operations and this makes the program costly. If FUNDES continues to concentrate in urban centers, it will be difficult to appraise and monitor borrowers in rural areas. Furthermore, the FUNDES lending technology may be limited in its application to only certain situations and countries.

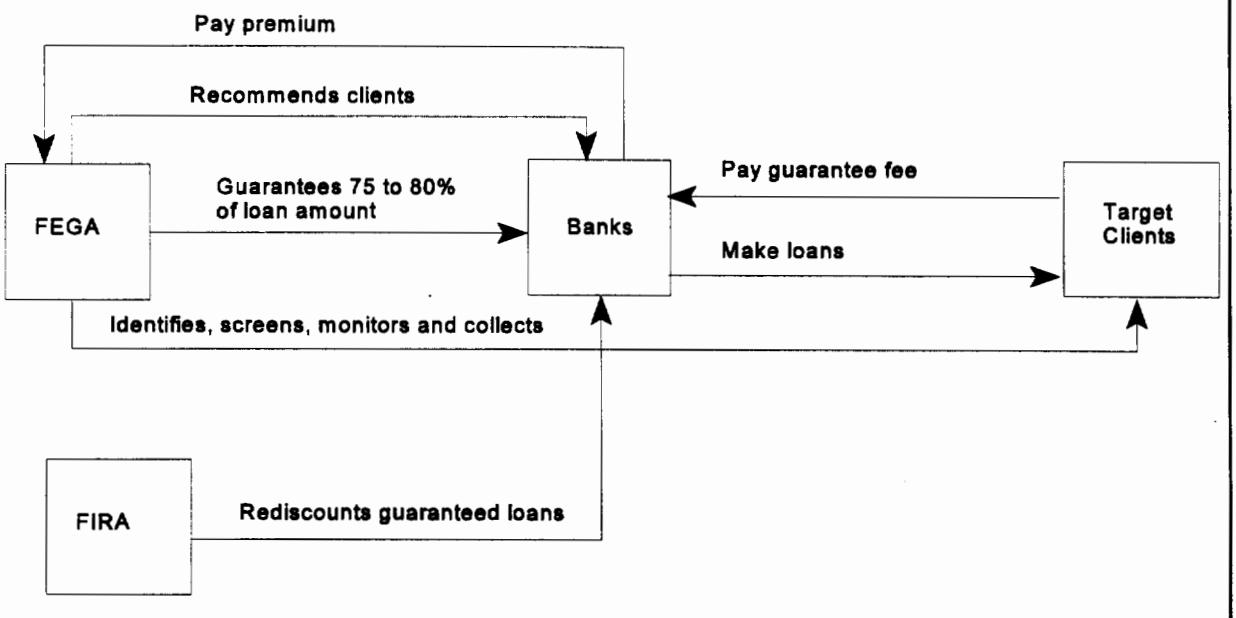
A detailed evaluation of the FUNDES program under the current selective and the proposed global approaches would be useful to enrich our understanding of the effects of these different approaches used in designing guarantee programs.

3. Mexico: Government Guarantee Program, FEGA

Agricultural loan guarantees in Mexico are issued by FEGA (Fondo Especial de Asistencia Tecnica y Garantia para Creditos Agropecuarios: Agriculture Technical Assistance and Loan Guarantee Trust Fund), which is one of four trust funds established in 1973 under FIRA (Fideicomisos Instituidos en Relacion con la Agricultura), a general trust fund for agriculture. FEGA promotes private bank lending to agriculture, reimburses commercial banks for the costs of loan evaluation and technical assistance for low income farmers, and provides partial credit guarantees for loans to cover all risks.

The operational method of the program is presented in Fig. 14. FEGA plays a major role in identifying and appraising loan applicants, and recommending them for bank loans with a guarantee of 80 percent of the amount of the loan. This procedure implies high operating costs for FEGA, and the major role it plays limits the banks' ability to learn microlending. Furthermore, FIRA rediscounts the guaranteed loans made by the banks. When banks incur defaults, FEGA makes them zero interest loans while it tries to collect or liquidate the collateral pledged by borrowers. Furthermore, FEGA makes technical assistance payments to commercial banks to help cover the administrative and technical assistance costs implicit in small farmer lending. While a 80 percent guarantee coverage of loan principal and interest losses incurred in agricultural lending is the normal procedure, banks that lend to very small farmers receive a 100 percent guarantee. Furthermore, these small farmer loans can be rediscounted and the costs incurred in making them can be fully reimbursed. This high guarantee coverage increases moral hazard and adverse selection.

Figure 14: Government Guarantee Scheme in Mexico.



The source of funding for FEGA is the federal government. During the 1983-92 period, the Government of Mexico transferred US$ 200 million to FEGA to offset its guarantee payment deficits. Until 1988, guarantee services were provided free of charge but FEGA now charges two and three percent of the annual outstanding credit balance to the banks for its 60 percent and 80 percent guarantees, respectively. However, due to the heavy involvement of FEGA in screening and monitoring borrowers, and collecting loans, the guarantee fee is inadequate to cover costs (The World Bank, 1994).

The amount of loans guaranteed by FEGA increased significantly from 1973 to 1985 but then declined through 1990. The indemnities paid increased from 1.9 percent of the outstanding guaranteed loans in 1986 to 15 percent in 1991. During this period, coverage of indemnities through premium income increased from 5 percent in 1988 to 40 percent in 1991. The premium

income was inadequate to fully cover the losses and administrative costs (Gudger, 1991). Therefore, government transfers have been made to FEGA to cover the shortfall. Furthermore, no reserve fund exists to meet claims made by the banks. The banks have to rely on budgetary allocations to settle their claims. These delays and failures to settle claims seriously undermine the credibility of this high cost scheme.

4. Women's World Banking (WWB)

The WWB loan guarantee agreements to finance microenterprises and small enterprises involve the WWB, a local bank and the local WWB affiliate. The operational mechanisms for small enterprise and microenterprise loans are diagramed in Figs. 15 and 16, respectively. The operational methods described reflect the design used until 1994. Field tests are being conducted to evaluate a new design but no details were available to us at the time of this report.

Figure 15: Women's World Banking (WWB): For Microenterprises.

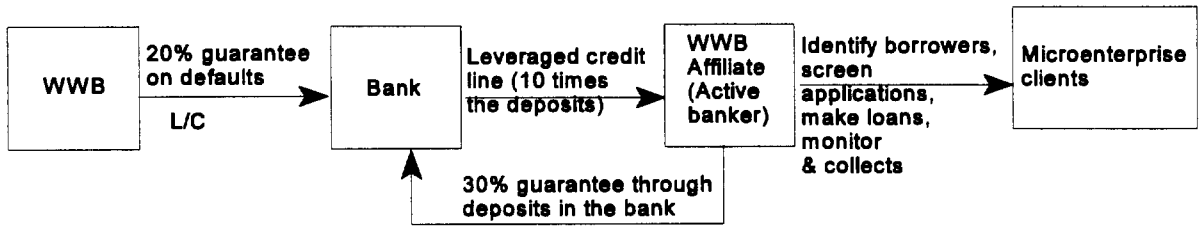
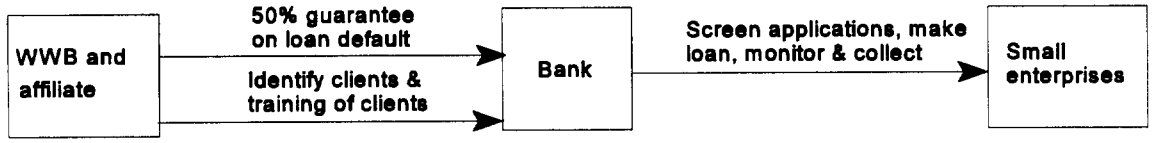


Figure 16: Women's World Banking (WWB): For Small Enterprises.



■ **Microenterprise loans**: The WWB issues a standby letter of credit to a local bank which serves as a guarantee for the line of credit extended by the local bank to the WWB affiliate. The affiliate also deposits an agreed amount with the local bank as a guarantee for the line of credit extended. ACCION lines of credit as guarantee are extended only to affiliates with proven records of lending to microentreprenuers with repayment rate of at least 98 percent. Local affiliates should also meet other conditions that include that they have an experience in lending at least 200 loans to at least 100 clients during at least one year. A strong strategic plan to reach self-sufficiency is also required. The WWB affiliate uses the funds obtained from the banks to lend to microentreprenuers. The affiliates pay the WWB an annual guarantee fee of two percent of the line of credit extended by the local bank.

While the WWB letters of credit cover 20 percent and the affiliate deposits cover 30 percent of the loan principal losses, the local bank is exposed to the remaining 50 percent. However, the bank is liable to share the loan principal loss only after the first 10 percent of the default on the credit line is fully covered by WWB and the affiliate deposits. With an affiliate's loan losses averaging to less than five percent, the banks virtually assume no risk in lending to the affiliates. The leverage ratio obtained by dividing the maximum amount in the line of credit by the amount in affiliate deposits and WWB guarantee works out to 3.3.

The mechanism for rish sharing is essentially a front loading of risk whereby the first 10 percent of the risk is absorbed by the WWB and the affiliates that actually make microloans. Therefore, the affiliates must be careful in making good loans. This mechanism is considered to be a better incentive to the local banks than is a fixed percentage guarantee. A drawback, however, is that the banks do not learn much microlending technology since they do not make loans directly to microclients.

■ **Small enterprise guarantee program**: In this program, the local bank directly makes loans to small enterprises which are jointly guaranteed by WWB and WWB affiliates. The guarantee covers the first 5 percent of loan losses. The local banks take the major portion of the risk. The WWB affiliate plays an active role in introducing good clients to the banks and helping the clients with their business plans. The leverage ratio is usually 5 to 10. Since they are directly

making loans, the banks have a good opportunity to learn about small enterprise lending through this type of guarantee (WWB, 1994).

In general, the ACCION designs create high leverage from local banks and also help reduce costs of operations and risks for the banks. The affiliates can reduce their dependence on donor funds since they can obtain funds from banks to expand their services. Since the WWB is currently guaranteeing only its well performing affiliates, the chances for moral hazard and adverse selection can be minimized at least at affiliate level. The microenterprise guarantee scheme, however, offers fewer opportunities for the banks to directly learn the techniques of lending to the target sector. Frequent modifications made to the basic model suggest that the program is implementing the program through learning by doing and is flexible to allow changes. It is important to study the evolution of the program to derive lessons on lending to targeted sector using credit guarantees.

B. Asia: The Philippines

There are several credit guarantee programs aimed at the agricultural, industrial and export sectors in the Philippines.

- **Agricultural sector**: The comprehensive agricultural loan fund (CALF) is constituted as a credit guarantee fund to cover up to 85 percent of the principal and interest of banks' outstanding small farmer agricultural loans. CALF is implemented through three government agencies: Philippine Crop Insurance Corporation (PCIC), Guarantee Fund for Small and Medium Enterprises (GFSME) and Quedan Guarantee Fund Board that comprises programs where banks, traders and millers lend against warehouse receipts (QGFB). These CALF institutions evaluate the applications for guarantee submitted by the banks to decide on the guarantee coverage. The banks choose among the three implementing agencies based on the type and amount of coverage required.

CALF is estimated to have benefitted 119,044 individuals, directly or indirectly through cooperative membership, since its inception in 1988. However, Llanto and Casuga found that the transaction costs of the guaranteed borrowers have increased and small farmers access to formal credit still remains limited. CALF did not provide additional advantages to the cooperatives or

individuals covered under the program, and private banks were not enthusiastic about providing loans to small borrowers even with the guarantee. Collateral was still required with a CALF guarantee.

- **Industrial sector**: There are several government guarantee programs for small, medium and microenterprises. The Industrial Guarantee Loan Fund (IGLF) provides both rediscounting and guarantee facilities to banks that make term loans to these enterprises. By 1990, IGLF reported few claims but only a few guarantees had been issued under the program. Earlier, a Cottage Industry Guarantee Loan Fund (CIGLF) established in 1980 was terminated due to high defaults. It provided 85 percent guarantee coverage to banks that made loans to cottage industries.

Currently, the Cottage Enterprise Finance Project (CEFP) initiated by the World Bank provides technical assistance with credit guarantees to the participating financial institutions that lend to small and miroenterprises. The credit guarantee system is designed as a Mutual Guarantee Association (MGA). The guarantee fund is comprised of: (i) a reserve liquid fund established by MGA borrower-members through initial contributions, and (ii) a matching loan fund provided by the Development Bank of the Philippines in the form of an interest free loan. The guarantee fund covers 80 percent of the outstanding and past due loan principal and interest payment losses. Although the banks are allowed a margin of 5 percent to cover their overhead costs, it was found to be insufficient to cover all of administrative costs (Seibel, 1995).

As noted in Section G above, the impact of most credit guarantee programs in the Philippines has been minimal. The implementation of several uncoordinated guarantee programs has created more confusion than increased lending to the target sectors. The failure of the guarantee programs is due in part to the lack of clear objectives, poor design, high costs of operation, and poor implementation.

C. Synthesis of Selected Guarantee Schemes in Asia and Latin America

The major features of the most important guarantee programs found in Asia and Latin America are presented in Table 5. The programs include the USAID program in Asia, and ACCION International, FUNDES, Women's World Banking and the Mexican Government

programs in Latin America. It is presumptuous to compare these diverse programs to derive best practices but some lessons can be derived from comparative examination.

1. **Form of the guarantee.** Guarantees funded by a specially created fund are considered by banks to be more credible than the coverage of losses paid through government budget allocations.

2. **Program approach**. The global approach tends to reduce operating costs at the guarantor level, provides banks with the opportunity to learn in the process of lending to the targeted clientele, but increases chances for moral hazard and adverse selection by banks. In contrast, the selective approach increases operating costs for the guarantor, reduces learning by the banks, but minimizes moral hazard and adverse selection by the banks. Nonetheless, the global approach combined with careful monitoring by the guarantor and technical assistance is likely to be an efficient approach.

3. **Program Design**. The majority of the successful Latin American programs use a two-stage rather than a one-stage model. While the one-stage model helps the banks to learn the lending technology, it increases the costs of operation. The two-stage model reduces costs and risks for the banks but reduces learning by the banks. However, the experiences of ACCION International and WWB compared to the Mexican and Philippines examples indicate that the two-stage model that can leverage funds from local banks may be suitable to many developing countries.

4. **Guarantee coverage**. The programs examined in this report indicate that a very high coverage leads to high losses, while low coverage discourages bank participation. A guarantee coverage between 50-70 percent combined with technical assistance seems to be a reasonable compromise.

5. **Guarantee fee**. It is difficult to establish an uniform fee structure to suit all types of guarantees. The guarantee fee must be high enough to cover costs and claims to ensure sustainability. The volume of loans guaranteed and the amount of claims approved need to be considered in pricing the guarantees.

Table 5: Selected Credit Guarantee Schemes in Asia and Latin America: Operational Methods, Performance, Strengths and Weaknesses.

Item	Program				
	FUNDES	ACCION	WWB	USAID, LPG	Mexico (FEGA)
Year started	1984	1984	1985	1989	1973
Areas of operation	Panama, Argentina, Bolivia, Chile, Columbia, Costa Rica, Guatemala, Mexico	Argentina, Bolivia, Chile, Columbia, Costa Rica, Ecuador, Mexico, Peru, Paraguay	Latin America, Africa.	Asia, Latin America, Middle East.	Mexico
Target sector	SME	SME	SME	SME	Agriculture
Approach	Selective	Global:ACCION Selective:Affiliate	Global:WWB Selective:Affiliate	Global	Global
Design	Single and two stage	Two-stage	Two-stage	One-stage	One-stage
Guarantee coverage	50% of loan principal loss	20-90% of loan principal loss	20% by WWB, 30% by affiliate and 50% by banks of loan principal losses (after first 10% of defaults completely covered by WWB).	50% of loan principal losses	80% of loss of principal and interest (100% on small farmer loss of principal and interest)
Premium rate per annum	na	3% of credit line extended for affiliates and none for banks	2% of outstanding guarantees	1.25% of outstanding guarantees	2-3% of outstanding guarantees
Leverage ratio (fund size: loans issued)	1:2	1:2.9	1:3.3	1:2	1:1-1.25
Leverage through local banks	Medium	High	High	Medium	Low
Outstanding guarantees (million US$)	14 (as of 1992)	6.25 (as of 1994)	na	52.3 (for Africa as of 1994)	4.0 (Total over period 1973-1990)
Repayment rate	97.5% without Panama and 82% with Panama (as of 1992)	98% (as of 1994)	> 95%	na	67% (1973-1990)

(cont.)

Table 5: Selected Credit Guarantee Schemes in Africa and Latin America: Operational Methods, Performance, Strengths and Weaknesses. (cont.)

Item	Program				
	FUNDES	ACCION	WWB	USAID, LPG	Mexico (FEGA)
Claims made on the fund	Low	None	None	na	US$ 94 Million (1973-1990)
Reserve funds to meet claims	Exists	Exists	Exists	None	None
Technical assistance to banks and SMEs	Provided	Provided	Provided	Provided	Provided
Screening, monitoring and collection by the program	Yes	No	No	No	Yes
Strengths	Strong technical component; low default rates; reserve funds to absorb claim payments; very low transaction costs for banks.	Strong technical component; high leverage from local banks; low default rates; reserve funds to absorb losses; low transaction costs for banks.	Strong technical component; high leverage from local banks; reserve funds to absorb losses; reduced transaction costs for banks.	Strong technical component; learning occurs for the banks.	Technical component; low transaction costs and risks for banks.
Weaknesses	Low volume of coverage; time consuming and costly operation; limited leverage by local banks; less learning for local banks; limited to affiliates; triple moral hazard and adverse selection problems.	Less learning for local banks; limited only to affiliates; triple moral hazard and adverse selection problems.	Less learning for local banks; limited only to affiliates; triple moral hazard and adverse selection problems.	Double moral hazard and adverse selection problems; no reserve funds to meet claims.	Low leverage by local banks; high default rates; costly; low credibility of the guarantor; no learning for banks.

6. Guarantor involvement. Heavy involvement by the guarantor, as in the case of Mexico, in screening and monitoring borrowers and collecting loans increases costs and discourages the banks to engage in prudent lending. However, a smaller involvement by the guarantor creates moral hazard and adverse selection problem.

The next section summarizes the report and derives implications for Sub-Saharan Africa.

V. SUMMARY, IMPLICATIONS, AND UNRESOLVED ISSUES

In this paper we have discussed some key issues concerning the theory, design and evaluation of credit guarantee schemes. We described programs found in SSA for which we were able to obtain information, along with selected schemes found in other developing countries. The information was used to identify important issues in evaluating the impact of this type of intervention in financial markets. Information about guarantees and their impact in developing countries is surprisingly thin and superficial considering the large number of programs that have been implemented, and the enthusiasm that many governments, donors and banks have for them. Evaluators have had difficulty in demonstrating that these schemes have lived up to expectations, and some analysts are convinced they are either too ineffective or costly to justify the few benefits received.

The information we could collect and analyze was far too incomplete to make a definitive assessment. The weight of the evidence, however, is clearly negative. Most of the programs studied clearly do not live up to expectations. Costs are high and there is little solid evidence of additionality in lending to the targeted clients or sectors. Furthermore, there is little evidence that many lenders have gained useful expertise because of guarantees and used it to expand their lending without the guarantees. The programs of ACCION International, FUNDES, and Women's World Banking are clearly more promising than many earlier, more naive programs, but even their models are under revision suggesting that they have not yet found the key to success. The burden of proof that this type of intervention into financial markets is cost effective and sustainable clearly rests on the shoulders of its advocates. So far, they have not clearly made their case.

In this final section, we present some general observations about guarantees, identify some specific implications for SSA, and conclude with some unresolved issues.

A. State of the Art for Credit Guarantees

1. State of the Theory

Few theoretical studies exist that effectively describe or attempt to model the concept of a credit guarantee. Frequently, the theory of insurance is presumed to be an adequate framework but the literature is limited in its ability to theoretically show the effects of guarantee programs

which have features distinct from insurance. The literature does not carefully describe the objectives of all three participants - guarantors, lenders and borrowers - in a dynamic setting. Theoretical models using a dynamic framework would be useful to help understand the relationships among the three participants, but they might have limited applications for empirical verification because such models tend to be highly data intensive. The lack of well developed theoretical models complicates the problem of evaluating guarantees. The missing link between theory and empirical evidence contributes to inconclusive and overblown interpretations regarding the impact of credit guarantee programs.

2. State of the Design of Guarantee Schemes

An ideal design for a credit guarantee should encourage banks (or lenders in general) to lend to the targeted clientele, but make them liable for some losses in order to minimize moral hazard and adverse selection. It should involve learning so the banks can incorporate the target sector into their normal lending without subsidies. The incentives for a bank to participate in a guarantee program depends on the risk reduction provided by the guarantee coverage, the level of guarantee fees and costs, and the credibility of the guarantor. To participate in guarantees, a bank needs to realize some increased profits compared to using its existing financial technology to lend to its normal clients. In other words, a credit guarantee program needs to be designed to reduce risks and/or transaction costs in serving the target clientele. Once a bank is willing to participate, the guarantee should be designed to produce two effects: (i) minimize moral hazard and adverse selection at both the lender and borrower levels so that defaults and losses are low, and (ii) induce banks to learn new lending technologies and adopt appropriate loan pricing so guarantees can be reduced or eliminated over time.

While it is relatively easy to outline the basic elements of an ideal guarantee, it has been difficult to actually design and implement sustainable programs. Lack of experience in lending to the targeted clientele, high transaction costs for guarantees, and to a lesser extent, high opportunity costs for lenders due to crowding out of regular clients to accommodate guaranteed clients have contributed to their frequent failures and dependence on subsidy.

Furthermore, there is unlikely to be a single generic design suited to all countries and regions at all times. Donors and governments need to be flexible in designing programs to fit local

circumstances. In some cases, experimentation is required to derive a workable design. Women's World Banking, for example, has modified its program three times since its initial implementation in 1986 based on feedback from participants. Flexibility in design is especially important for multi-country programs.

3. State of Evaluating Credit Guarantees

Much of the analysis conducted on the impact of credit guarantees suffers from the same methodological weaknesses found in impact analysis of credit programs. Additionality of guarantee programs is difficult to ascertain with simple research designs, but robust methodologies are costly to implement, require a great deal of data and talent to complete, and still may not completely resolve attribution problems. Evaluating the revenues, costs, and losses of guarantee funds is necessary to determine implicit subsidies and future viability. New methods need to be developed so lenders and borrowers can provide simple and inexpensive information useful for evaluations. A few comprehensive evaluations need to be conducted to learn if some of the fundamental concepts of guarantees are correct.

B. Implications for Sub-Saharan Africa

Several implications for Sub-Saharan Africa can be derived from our analysis. The typical one stage credit guarantee programs seems premature for most of Sub-Saharan Africa unless the objective of the guarantee is to simply subsidize loans. A two stage approach involving self help groups as counter guarantors may be a better option to reach very small and risky clientele. The mutual credit associations used in Germany may be a useful model to consider because they involve bringing the information and resources of the community to bear on lending decisions and risk sharing. However, the banking regulations in several SSA countries that restrict setting up of mutual credit associations would need to be relaxed. The few mutual credit associations operating in Senegal are reported to have problems due to heterogenous member composition, large contributions from the government, and poorly trained management (Balkenhol, 1990). These experiments need to be further analyzed to see if they can be redesigned for use in guarantee programs.

The SSA region, however, suffers from several problems that deter the development of efficient credit guarantee schemes.

1. Financial risks due to an inefficient banking sector. Some advocates of credit guarantee programs might argue that an environment with inefficient banking is an ideal place for setting up guarantee programs. External intervention in the form of guarantees is presumed to compensate for market inefficiencies. However, conducive macroeconomic conditions should also exist to reduce financial market inefficiencies. Otherwise, the inefficiencies of the banking sector may only be further aggravated by introducing credit guarantee schemes.

The history of banking in SSA is relatively brief compared to Asia and Latin America. The Structural Adjustment Programs implemented in the early 1980s have yet to make a significant impact on the banking industry. On the one hand, several of the African banks are foreign owned, and have less of a commitment towards the subsectors often targeted for guarantees. On the other hand, many locally owned banks are highly inefficient in providing financial services. In addition, the availability of safe investments in high interest T-bills and government bonds has discouraged banks from making loans of any kind. It is not surprising, therefore, that they are reluctant to lend to the targeted clientele (Collier, 1991; Meyer, Graham, and Cuevas, 1992).

2. Political risks. A stable political environment is essential for banks to have the confidence needed to make long-term and risky loans. Political instability also affects the credibility of guarantees, especially those financed by governments.

3. Production and marketing risks. The high level of risks involved in the production and marketing of agricultural and non-agricultural products seriously undermine the viability of many enterprises. These risks are compounded by a lack of infrastructure facilities, information systems, and good links with research and extension institutions. It is difficult for banks to make and recover loans from a risky clientele operating in this inhospitable environment.

4. Lack of coordination. Several SSA countries have multiple guarantee programs with diverse designs and methods of implementation. There appears to be limited coordination among the guarantors to avoid duplication of efforts and negative externalities. The coordination between FUNDES and ACCION, two guarantors operating in several of the same Latin American

countries, needs to be studied to learn how guarantors can complement each other to achieve their respective objectives.

5. Paucity of data. Limitations in data represent a very serious problem for the robust study of guarantees. Many guarantee programs have been implemented in Africa and other regions, but there are few reliable studies of their performance. Few programs have built in mechanisms that generate sufficient financial and other data to facilitate evaluations, suggesting a failure in design. Most programs do not adequately document costs, revenues and losses in a way conducive to calculating implicit and explicit subsidies. Credible evaluations are needed to improve performance, identify design and implementation problems, and terminate inefficient programs.

6. Risk of patronage. Several of the programs are donor dependent and require a substantial amount of financial and technical assistance from donors. Although no attempt is made to calculate the subsidy index of the programs, it is expected to be high.[15]

C. Unresolved Issues

Several fundamental issues need to be resolved about credit guarantee schemes.

1. The role of interest rates. The normal way that lenders adjust to risk is through differentiated interest rates. Riskier borrowers and riskier projects are charged higher rates. Rarely in discussions about guarantees is there a clear analysis of why lenders in developing countries do not raise their rates sufficiently to cover the risk of lending to the clientele targeted by governments and donors. In some cases the reason may be usury laws, in others it may be a concern of increasing adverse selection, and in others it may be a fear of being accused of exploiting poor customers. If the latter is the main reason, the recent progress made by some specialized NGOs and microfinance banks in making small high interest rate loans to microentreprenuers may imply that the stigma of high interest rates has been broken. If so, banks may be able to charge rates that cover costs, resolving one rationale for guarantees.

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[15] The Subsidy Dependence Index developed by Yaron has become a useful method to evaluate subsidies in loan programs. A similar approach would be useful for guarantees.

2. The objectives of guarantees. The objectives for many guarantees are not clear.[16] Are they intended to correct market failure? To channel funds to borrowers expected to generate growth and employment? To improve the distribution of loans to a specific type of borrower? Clarity of objectives is needed to determine what potential impacts should be measured, and to help balance the tradeoffs between an increase/decrease in welfare experienced by one participant (guarantor, lender or borrower) relative to another.

3. Increasing employment. Some guarantees are promoted because they are expected to generate employment. Cross-sectoral data are often used to show the large number of persons employed by small firms, and this finding is given as a rationale for improving their access to loans. Yet surprisingly little is known about the dynamic process of job creation by firm size, or the influence of loans on that process. A loan which facilitates the acquisition of labor-saving machinery may actually displace labor in the borrowing firm and in competing firms. Guarantees which subsidize borrowing firms provide them with an unfair advantage in their competition with nonsubsidized firms. More information is needed to understand the extent to which guarantees produce perverse aggregate results.

4. Design of cost efficient methods for evaluation. The current evaluation methods based on simple data are inadequate to adequately test for the additionality of lending attributable to guarantee programs. Implicit costs due to adverse selection, moral hazard, fungibility of loans, and implicit subsidies are seldom measured. But employing more robust methodologies is costly and data intensive. New methods need to be developed so lenders and borrowers can provide simple and inexpensive information useful for evaluations.

Developing theory and methodologies to study credit guarantee schemes is complex. Nonetheless, the concept of a credit guarantee must be better understood prior to recommending it as an instrument to increase lending to targeted clientele. Case studies based on rigorous methodologies will facilitate a better understanding of credit guarantee schemes, but attribution

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[16] Rhyne presents a comprehensive and informative analysis of this problem in the U.S. Small Business Administration guarantee program.

problems will continue to make it difficult to arrive at unambiguous conclusions without making arbitrary and unrealistic assumptions.

5. The inherent limits of guarantees in strengthening financial markets. An important problem for lenders is asymmetric information: they have less information than borrowers about borrowers' projects and intentions. Therefore, loan collateral is employed to reduce risks in two ways. First, it is a signaling device. A borrower who is confident about his project and is serious about repaying is willing to offer a larger amount of collateral relative to the amount borrowed. Second, the potential loss of collateral in the event of default serves as a threat to borrowers to repay loans, and reduces a lender's loss in the event of default.

Credit guarantees provide a substitute for borrower collateral which may reduce lender risk sufficiently to induce additional lending to the target clientele. In the process of lending, the lender may learn that the target clientele is not as risky as expected. But the guarantees do not attack the basic information problem. Nor do they improve the borrowers' projects, and may even reduce the signaling benefits of the borrowers' own collateral. Adding the costs of operating the guarantee to the lenders' costs undoubtedly raises total lending costs. Total lending risks may also rise because of double moral hazard and adverse selection problems. Simply providing guarantees does not assure that lenders will learn how to make better loans.

For these several reasons, it is understandable that many recent guarantee schemes offer to the lenders something in addition to a pure guarantee. The schemes often provide training and technical assistance designed to directly improve lender performance. They attempt to teach lenders better techniques for screening applicants, evaluating collateral, monitoring loans, and collecting payments. These dimensions may be more important to the lender than the guarantee itself.

The efficiency of the use of subsidies provided through guarantees needs to be carefully evaluated. In some cases, the training and technical assistance provided to lenders to directly improve lending technologies may provide a greater payoff than a guarantee. In other cases, direct efforts to reduce the lenders' information problem, such as creation of credit bureaus, may be a more cost effective way to facilitate lending. Furthermore, such investments may benefit the entire financial system, not just the particular lenders that participate in guarantees.

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