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Rural Finance in Latin America and the Caribbean: Challenges and Opportunities

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Abstract

Despite substantial financial deregulation in larger financial systems, rural financial markets in Latin America have been shown to be shallow, segmented, and inefficient. The principal reasons for the observed market failure are due to pervasive risk, information asymmetries, and high transaction costs. In order to improve the situation, yet avoid government failure, concerted effort is needed in a number of areas--- macroeconomic, sectoral, legal, regulatory, institution capacity building, and new product development to effectively resolve the underlying root causes. The role of donors and national governments is primarily to create a conducive environment and the role of the private intermediaries is to assume risks and to provide financial services.

1. Introduction

1.1 Historical Overview and Recent Reforms.

Between 1950 and the early 1990s, Latin American and Caribbean countries relied on a government-driven approach to serve the financial needs of their rural sectors. The design of large targeted and subsidized credit programs, implemented through state-owned specialized agricultural development banks and private commercial financial entities, was the norm.

The objective was to improve access to credit for small farmers and thereby spur agricultural sectoral growth and income expansion. Despite the substantial efforts and the best of intentions, evaluations of credit programs sponsored by various international development agencies indicate that results have been less than expected.

Since the late 1980s and early 1990s much of Latin America and the Caribbean has experienced a wave of financial liberalization resulting in market determined interest rates, higher investment efficiency, greater banking competition, and a wider offering of financial products. Most of these changes have been noted in urban markets, however. Rural financial markets, for the most part, continue, to be underdeveloped, shallow, and noncompetitive. This duality in financial market development limits growth and dynamism in the rural sector and raises policy concerns about income distribution and balanced economic growth. Although Latin America is the most urbanized continent in the developing world, sizeable

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proportions of the total population still reside in rural areas (regional average 39.6%) and agricultural pursuits still generate a fair share of total economic value (regional average 11.5%) and employment (regional unweighted average 16.5%). The majority of rural residents tend to be small-scale agricultural producers and entrepreneurs who experience higher levels of poverty incidence than their urban counterparts and greater difficulties in accessing formal financial services.²

1.2 Importance of Financial Sector Development

Historically, financial sector development has been an important element in overall economic growth and development for three reasons. First, financial sector development unleashes the economic potential of increasingly greater proportions of the population and accelerates *economic growth* through efficient intermediation and risk management. Countries with more developed financial markets and greater financial depth as measured by M2 to Gross Domestic Product have grown faster than other countries with less complete and developed financial markets (Levine, 1998). Second, the lack of adequate financial services hinders the formation of new enterprises and the expansion and modernization of existing ones and contributes to *income inequality*. Those able to access credit and deposit services a priori have an advantage in achieving income expansion versus those that do not. Third, improve rural financial intermediation can contribute to poverty alleviation goals if accompanied by rational and equitable reforms in macroeconomic and sectoral economic policies and improvements in the functioning of factor markets.

1.3 Objectives

This paper has four purposes. First, it seeks to provide an overview of the current situation in rural financial markets in the region, since the onset of widespread financial liberalization earlier in the decade (Section 2). Second, it presents a unified framework that explains why these markets do not work well and in particular why formal intermediaries find small-scale entrepreneurs to be unattractive clients (Section 3). Third, it highlights the lessons learned at the Inter-American Development Bank (IDB) in rural finance operations (Section 4). Fourth, it identifies the main actions and policy reforms that are required to resolve the identified problems (Section 5).

² ECLAC estimated that 53% of rural households in region were below the poverty line in 1990 compared to 39% of all households (1996).

2. Overview of the Current Situation in Rural Financial Markets

2.1 Depth

The late 1980s and early 1990s ushered in a period of financial liberalization for many Latin America and Caribbean countries.³ These reforms eliminated severe policy distortions (interest rate ceilings, credit allocation quotas, reduced and unified reserve requirements), promoted greater competition (allowed entry of foreign-owned financial institutions), and strengthened prudential norms and supervisory authorities (improved capital adequacy standards, tighter limits on related lending, increased provisioning, etc). As a result of the reform efforts, the commonly used measure of financial market development, the degree of monetization or financial depth (measured as the broad supply of money (M2) as a percent of GDP), increased for a large number of countries between 1990 and 1997 (Table 1). For 20 out of 25 IDB borrowing member borrowing countries, the ratio of M2/GDP was higher in 1997 than was the case in 1990. For 14 of these countries the increased depth was 25% higher in 1997 than it was 7 years earlier. The countries that exhibited dramatic improvements in depth were Argentina, Bolivia, Brazil, Colombia, Guatemala, Nicaragua, Panama, and Paraguay.

Twelve economies in the region can be characterized as agrarian: Belize, Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Paraguay, and Suriname. Nine of these have experienced significant financial deepening (Table 1), with five - Bolivia, Ecuador, Guatemala, Nicaragua and Paraguay - experiencing an increase in depth of 50% or higher.⁴ In three cases, however, Haiti, Guyana and Suriname - financial depth actually decreased.

The general trend of increasing economy wide financial depth in the 1990s, especially for the agrarian countries, however, was not accompanied by an increase in formal credit services to rural areas. For 6 out of 10 countries with available data, credit to agriculture (including livestock, forestry, and fisheries) from formal sources decreased significantly, both in relation to total formal credit as well as to agricultural GDP, even though these same six countries exhibited substantial increase in overall financial depth (Table 2).

2.2 Efficiency Indicators

While financial depth increased in the region's financial systems, there has been no overall improvement in financial efficiency, that is the margin between the cost of mobilizing liabilities and the earnings on assets. Small financial margins are important because they contribute to economic growth by reducing lending rates and the cost of investment. Thus, interest rates reflect the responsiveness of financial institutions to competition and price incentives. For countries with available data in the region, only Chile, Nicaragua, Peru, and Uruguay exhibited improvements between 1990 and 1995. Compared to the international benchmark of efficiency, LIBOR, Panama, is the most efficient in the region (Table 3).

INSERT TABLE 3

On the savings side, depositors are motivated by positive real rates of return on financial instruments. Real deposit interest

³ The Inter-American Development Bank approved and financed 13 Financial Sector Loans and an additional 18 Investment Sector Loans, many of which has financial sector reform components in the period of 1990 to 1998. The World Bank, similarly financed 26 financial sector adjustment related operations in the period of 1985-1996. Sources: *Lessons Learned in Rural Finance at the Inter-American Development Bank*, (1999) **Financial Sector Reform: A Review of World Bank Assistance**, (1998).

⁴ For purposes of this study, agrarian economies are those that have predominantly rural populations (>40%) and agricultural output representing 10% or more as a share of GDP. The list includes: Belize, Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Nicaragua, Paraguay and Suriname.

rates have been generally negative in the 1990s , although, in later years, these rates have become less negative as financial reforms have taken hold, inflation has been controlled in and ceilings on lending rates have been eliminated (Table 4).

INSERT TABLE 4

2.3 Access to Formal Financial Services

2.3.1 Access to Credit

Access rates to formal credit and deposit services remain low for most countries. The available data on access to credit, measured as the proportion of persons who borrowed in a given year (or, if available, over a longer period of time), is summarized in Table 5. In most countries the range is from a low of 2% in Peru to a high of 28% in Mexico. A notable exception is Costa Rica, where the combination of a small geographic extension, small population, and an extensive branch network of state owned banks apparently gives rise to high access rates.

Market segmentation is also common. Borrowers tend to rely on a single source of credit providing a single financial product. Those who access formal credit tend to be larger farmers and higher income households and rely primarily on cash loans with relatively long duration. Landless farm workers and poorer households tend to rely on informal sources of credit, for consumption smoothing and to meet emergency needs, and the loans they receive tend to be of short duration. For example, in the case of Mexican rural entrepreneurs (farm and non-farm) with credit (World Bank 1995), a survey estimated that 81.2% used informal credit sources only, 9.4% used formal sources only, and only 9.4% used both formal and informal sources. A comparable survey of 628 rural households in El Salvador found only two families with outstanding debt balances with more than one type of lender (World Bank 1999). More detailed information is available from a survey of 250 Honduran farmers wherein out of a total of five possible classifications (bank credit, non-bank credit, commercial credit, moneylenders, and friends, 58% relied over a 5 year period on only one source of credit, 26% on two sources, and 17% on 3 or more (González-Vega and Torrico, 1995).

Since formal sector loans tend to be larger and of longer duration, their quantitative significance is greater than access rates suggest. In El Salvador, formal sources accounted for 41% of the total number of loans but 76% of the amounts borrowed in 1995 by rural households surveyed. In the case of Mexican entrepreneurs, formal sector loans provided the major share, 61%, of the total amounts borrowed, compared to access rates of only 13%. Informal sources gave rural people significant access to credit *Bi.e.* access rates of 54% for commercial credit, 10% for moneylenders, 14% for friends and relatives, and 8% for processing and trade establishments enabling forward sales; but the volume of credit granted by informal sources was limited *Bi.e.* % of total volume of credit of 15% for commercial credit, 13% for forward sales, 8% for moneylender credit and 3% for loans from family and relatives (World Bank, 1998).

The evidence also suggests that where official government credit allocations to agriculture declines, informal sources are strengthened but do not entirely make up for the decline in supply. The elimination of Mexico's PRONASOL *crédito a la palabra* program, for instance, appears to have led to a significant decline in formal credit access by *ejidatarios* from 28% in 1994 to 13% in 1997 (World Bank, 1999a). Informal credit sources have become more important, increasing from 2% in 1994 to 7% in 1997 (Table 5). They have not however made up, quantitatively or qualitatively, for the whole decline in formal credit sources.

2.3.2 Access to Deposit Services

Rural residents seem to have even less access to formal deposit services than to formal credit services. Information available for a selected number of countries shows rates of participation in formal and semi-formal savings services that are uniformly below 15% (Table 6).

Recent studies focused on Latin America and the Caribbean, demonstrates that low income, rural residents have the capacity to save and must do so given the marked seasonality of income flows in agriculture (Mansell (Mexico), 1995, Wisniwski

(Bolivia), 1996, and Hunte (Jamaica) 1997). Most savings, however, is in-kind (livestock, grain reserves, jewelry, inventories, and land). Rural residents may be willing to monetize in-kind savings but two impediments seem to prevent this from happening-- the lack of conveniently located branches of deposit taking institutions in rural areas plus the corrosive effect of high inflation rates on purchasing power.

In the 1990s, inflation rates generally declined across the region, but as of 1997, 8 out of 24 countries reported double digit figures, and of those 4 were greater than 20% (Ecuador, Honduras, Mexico and Venezuela), a commonly accepted threshold value for financial instability.

2.4 Limited Range of Other Financial Services: Insurance and Commodity Linked Finance

Rural entrepreneurs, especially farmers, in Latin America generally lack access to insurance services, payment services, commodity structured finance, and risk management instruments such as forward contracts, futures, options, and commodity swaps that could potentially increase welfare by protecting against catastrophic loss of income, reduce transaction costs, and reduce revenue uncertainty.

For example, earlier in the decade, only nine countries in the region were known to have offered agricultural insurance products.⁵ For the most part, the insurers have mixed or wholly public ownership and came into being to protect medium and small farmers from catastrophic income loss and reduce default risk for state agricultural and commercial banks. These entities tend to incur financial losses, be subsidy dependent, and have limited coverage. The best multiple peril performer was the Chilean program and the best single-peril performer was the Windward Islands as of the early 1990s(Hazell, 1993).

Another area that is underdeveloped is commodity collateralized finance. Commodity backed finance and instruments to manage commodity risk are potentially very significant for Latin American and Caribbean countries, given their high degree of dependence on trade of agricultural commodities. Based on trade data from 1990-95, nine countries of the region earn more than 50% of export receipts from agriculture(IFS). These products are subject to price volatility and uncertainty which have can both macro and micro effects. At the macro level, adverse movements can affect the current account deficit, the government's budget, and international reserves. On the micro level, volatility increases credit risk for producers and exporters and banks and trade houses who finance them.

In Latin America, the limited availability of commodity collateralized schemes (warehouse receipts, green clause letter of credit, repo transactions, discounted receivables) and hedging instruments (forward contracts, futures contracts, options, and swaps) makes it more difficult for agricultural producers, food processors, traders, exporters, and importers to obtain financing and mitigate foreign exchange, interest rate, and credit risks. Collateralized commodity financing essentially allows physical commodities, whether produced and stored or to yet to be grown (extracted) as well as titles thereto, to be pledged as a security or a source of repayment to obtain credit or trade finance. Since many rural producers, especially medium and small farmers, have limited amount of real property to pledge as collateral, the expansion of the set of acceptable types of collateral, can allow greater access and reduce risk premia in lending.⁶ All parties, the producer, processor, exporter, and the credit provider, benefit. In Latin America, warehouse receipts(warrants) are known to be used in a number of countries. Legal restrictions, standardized grading issues and certification costs limit accessibility just to large producers. Regarding the other instruments (green clause letters of credit, discounted receivables) there is a paucity of data. Hedging instruments for agricultural commodities, (futures) are known to be used in Argentina, Brazil, and Mexico in external trade. The application to internal markets is not observed in the region. (Chalmin, 1998).

⁵ The countries were Brazil, Chile, Costa Rica, Dominican Republic, Jamaica, Mexico, Panama, Venezuela, St.Lucia-Dominica-Grenada.

⁶ Latin American countries have the worse Gini Index Values for Concentration of Landownership in the world. Twelve of 17 countries (70%)have index values superior to .80. In contrast, only 15% of the other developing areas and industrialized countries in the sample of 54, report index values of .8. (World Bank, 1993, p. 8)

3. Conceptual Framework of Analysis

Rural financial markets are shallow, segmented, and inefficient because risk, imperfect information, and transaction costs are pervasive problems. Until these problems are effectively resolved, these markets will continue to function poorly. Past public sector interventions (credit quotas, mandated subsidized interest rates) focused on symptoms—lack of access by small scale producers—without an understanding of the underlying factors that shape rural financial markets and make small producers, for example, non-preferred clients. As a guide to policy formulation and to evaluate the likely consequences of alternative interventions, a conceptual framework that unifies the consideration of risk, asymmetric information, and transaction cost is required.

3.1. Causes of Shallowness, Segmentation, and Inefficiency

A financial contract is an intertemporal promissory claim with uncertainty of compliance. It is primarily affected by evaluations of risk, available means to share and reduce risk, completeness and cost of information on willingness and capacity to honor the commitment made, and per unit transaction costs.

3.1.1 Risk

Rural economies are marked by high risk and limited mitigation techniques. Rural agricultural producers and entrepreneurs who contract a financial obligation are subject to systematic variability that may result in involuntary default. Typical sources of risk include:

Yield: Supply variability that can stem from unfavorable production conditions (weather, pests, disease, poor health of the operator, equipment failure, theft/lost/damage to productive moveable assets, inability to meet simultaneous peak demand for fixed inputs (synchronic risk), suboptimal timing in the application of inputs) that reduces yields below the expected norm and thus income.

Price: Variability in (i) input prices that increase costs of production or (ii) forces a change in choice of production technique resulting in less profit and/or less yield; and (iii) variability in supply arising from variability in price expectations of output (cobweb effect).

The existing set of household coping strategies tend to be few and non-robust. They include among others: (i) change to less risky production techniques; (ii) diversify crop and livestock (product or retail) mix; (iii) plot fragmentation to take advantage of different microclimates; (iv) supplement income through wage employment for another; (v) accumulate in-kind savings; (vi) invest in social collateral so as to be able access emergency loans from informal sources (Rotating Saving and Credit Associations (ROSCAs), employer-landlord, cooperatives, etc.); and (vi) attempt to purchase crop and/or credit insurance. Some of the choices, for example, choice of production technique or crop diversification may imply investment in irrigation or large up front costs that require external financing, creating a chicken and egg problem. Others such as plot fragmentation and off-site employment may reduce economies of scale and lower productivity. Still others, such as emergency loans from informal sources may be high cost and inadequate, depending on the severity of the income shortfall. Lastly, formal sector insurance products may be unavailable or unaffordable.

Formal, rural financial intermediaries also have a limited set of default risk mitigation instruments: (i) demanding collateral and/or third party guarantees; (ii) including a risk premium in the interest charged; (ii) establishing adequate loan loss reserves; and (iii) portfolio diversification. Depending on the circumstances these coping mechanisms may not be sufficient and result in either no lending, rationing of loan size below the optimal demand, or lending only to those with sufficient collateral. Since the majority of rural residents tend to be collateral constrained this reduces outreach potential. The use of larger spreads may result in adverse selection.⁷ The use of portfolio diversification may be constrained by information and

⁷ Lenders can charge higher interest rates in an effort to cover some or all of the expected default risk. However, the charging of higher rates can contribute to adverse selection if the lender can not accurately assess the underlying

the structure of the regional economy where bank operates. If the intermediary has limited geographic coverage and many of the economic activities are interrelated, covariate risk can not be diminished. In summary, the opportunities for profitable intermediation are reduced, explaining why formal intermediaries are not eager to penetrate rural markets.

3.1.2 Imperfect Information

Information is costly to acquire and transmit, yet it is vital in assessing and managing risk. In the absence of adequate risk mitigation instruments (e.g., collateral, insurance, futures, etc.), additional information about borrower intentions and capacity, can help sort the pool of prospective applicants, and allow gain-risk trade-offs to be weighted. However, when information in addition to being costly, is asymmetrically distributed, meaning that one party knows less information about the other party and can not easily observe actions or discern intentions, incentive problems arise: screening, adverse selection, and moral hazard. In order to cope, lenders/insurers have to use contract design mechanisms to resolve these problems. Depositors, face a similar problem. They can not easily ascertain the fiduciary capacity of the deposit taking institution. Thus, they risk losing investments either to fraud or poor management.

Screening: The first challenge a lender faces is how to identify *Agood* from *Abad* credit risks. Since prospective clients know their own capabilities, wealth distribution, and true intentions and formal lenders can not easily distinguish differences. Both parties have to expend time and effort, gathering, transmitting, and processing information. The two traditional *direct screening devices* used to reduce lending risk are real collateral and interest rates. But these are not fully satisfactory and can lead to other problems (small outreach and adverse selection). Furthermore, if the lender does not know the true repayment intentions of the borrower, the utility of default can exceed the utility of repayment. Therefore, the lender will be driven to make loans smaller than the amount demanded (loan size rationing), lend to those who are less mobile and have made visible fixed investments, and rely heavily on collateral. Asking for real collateral, can increase the expected return of the lender and reduce the expected return of the borrower, serving to shift some of the risk of loss of principal to the borrower and reducing incentives for a strategic default.

In order to avoid adverse selection and increase outreach potential, most of the viable alternatives for formal intermediaries lie in the design of incentive compatible contracts that promote self-selection and assortative risk matching. In this non-traditional setting, the use of social collateral (reputation) as a substitute for real collateral, the use of repayment incentives (interest rate rebates, automatic approvals for second loans), and tied relationships (demonstrate ability to save first) become important. In this area formal financial institutions (banks and insurance companies) are at a distinct disadvantage vis-a-vis semi-formal and informal intermediaries (nonbanks (NGOs, credit unions, village banks, trader-supplier cum lenders, ROSCAs, and traditional moneylenders). The latter intermediaries through geographic proximity and a variety of interwoven social and economic relationships, can obtain information about the creditworthiness of a prospective client more rapidly and at lower cost than a formal intermediary. Consequently, informal lenders can more accurately identify those clients who will repay a loan commitment as long as project return or household resources permit.

Monitoring: Once screening has been completed and the loan (insurance policy) approved and disbursed, most rural lenders (insurers) invest in monitoring the behavior of clients to avoid moral hazard incentive problems. The typical lender checks the client periodically to verify that adequate *effort* (good husbandry) is being applied to increase the chances of investment project success. This implies costs. Formal financial intermediaries find this proposition unattractive due to the dispersion of clients, poor communication-transportation infrastructure, and the dearth of reliable financial and production records. Informal intermediaries through interlinked contracts and social proximity can more effortlessly and

riskiness of the investment projects to be financed. Clients with a safe but lower yielding projects, may opt out and not demand a loan. The result is that the loan contract with high interest rates will only attract clients with the higher risk projects, increasing default risk and thereby diminishing the expected profits of the lender (Stiglitz and Weiss, 1981).

more affordably monitor clients and resolve moral hazard problems.

3.1.3 Transaction Costs

The institutional setting, both the de jure political, social, and legal ground rules that establishes the basis for production, exchange, and distribution and the de facto contracting and governance arrangements between and within economic units, is vitally important to understanding how transactions costs arise and what can be done to economize. Transactions costs, that is all non-interest financial costs related to approving, processing, disbursing, and complying with a financial contract play a significant role in financial intermediation. High income clients who demand large loans, deposit and maintain large savings balances are less sensitive to transaction costs compared to low income, small borrowers and savers. What helps to determine transactions are (i) physical setting; (ii) the legal environment, and (iii) the nature and structure of the intermediary organization.

Physical Setting: The greater degree of spatial dispersion of clients and low quality of infrastructure raises transaction costs in rural areas for both intermediaries and clients. Given client dispersion, formal intermediaries can only justify opening branches in the denser areas. As a result, travel time for both clients getting to banks and bank staff making inspections can be substantial. Unreliable electric, telecommunications, and postal services complicate the transfer of information and legal notices.

Legal and Regulatory Environment: Transaction costs are affected by the de jure political, social, and legal rules. Three areas are of particular importance: property rights, contract enforcement, and prudential regulation and supervision.

Property Rights:

Often the preferred type of collateral for formal intermediaries is titled real estate. However, insecure land tenure is widespread in Latin America and serves as a barrier to access formal credit markets (BID, 1999a). More than 50% of farmers in Latin America are estimated to be own untitled land or hold unregistered land (López and Valdes, 1997). While the lack of real estate collateral is not an insurmountable barrier in short term lending, it can be a binding constraint for long term lending and housing credit.⁸

Given the dearth of real estate collateral and its adverse affect on small, risk averse borrowers, the acceptability of both tangible and intangible moveable collateral—vehicles, livestock, equipment, domestic appliances, inventories, accounts receivable, warehouse receipts, and commercial paper—promises to expand credit accessibility. However, the use of chattel collateral constrained by gaps in the law that does not recognize certain classes of assets (e.g. floating security interest in revolving inventory, accounts receivables, chattel paper) in certain countries (World Bank, 1999b).

Contract Enforcement:

In financial markets there are an array of instruments that set out claims against property. There are two general categories,

⁸ Evidence from Peru suggests that titling improves access to credit when coupled with favorable farm size and human capital characteristics. For larger coastal farmers, with higher levels of education, and closer proximity to markets, having title to land can significantly increase the probability of credit uses. For small farmers (< 3ha) located in the highland with low levels of educational attainment, the value of a title in improving access to credit was negligible. See FAO-MINAG-INEI, 1994.

a general claim against a debtor's property (e.g. complete seizure and control of the property) or a security interest or the right to be paid from the sale or exchange of the property for the outstanding debt plus penalty interest. A commercially useful framework for secured financial transactions should have the following characteristics:

- \$ The cost of creating an enforceable security interest should be modest.
- \$ The cost of enforcing the security interest should also be modest.
- \$ The security must produce real commercial value for the creditor when enforced.
- \$ The credit must be able to determine whether certainty and at little cost, before the transaction is consummated, whether other lenders have claims on the pledged asset.
- \$ The creditor must be protected against claims by third parties, in the event of collateral seizure, including other creditors, the trustee of bankruptcy, and purchasers of the security.

When these conditions are met, creditors can be more confident that lending risks can be mitigated and thus a greater amount of financial intermediation can occur. In Latin America and the Caribbean, these conditions are generally not met. Two reasons help explain the pervasive pattern of weaknesses: the influence of the French civil law tradition that places creditors generally at a disadvantage vis-a-vis debtors, and inadequacies in the institutions responsible for validating ownership and enforcing claims: public property registries and the judiciary.

For example, research on 49 countries by comparative legal scholars show that common law countries have legal systems that tend to protect creditors and tend to be more efficient in enforcement than civil law countries. In turn countries with stronger legal systems tend to have more developed financial markets (Levine, 1998; LaPorta, López de Silanes, Shleifer, and Vishny, 1996). In studies of six Latin American countries (Argentina, Uruguay, Bolivia, Peru, Guatemala, and Mexico), a common pattern of weaknesses were found with public registries and judicial bodies in the following areas that serve to increase intermediation costs and, in particular, the risk of using chattel security:

- \$ Poorly organized and maintained registries which make searching, registering, and documenting security interest expensive, time consuming, and risk (e.g. physical on-site presence requires; multiple registries exist which increase search costs and possibility of filing errors, backlogged systems).
- \$ Lack of registration of all transfers of accounts receivable make lending against accounts receivable too risky as lenders cannot check a public registry to learn if another creditor has a prior claim.
- \$ Difficulties in establishing a breach of contract. The process can be time consuming and require certification of previous payments.
- \$ Difficulties in obtaining a judgement and seizing the collateral. The law often requires a judicial action to repossess and sell collateral. Because the judicial system is slow, the process can last from 6 months to 2 years and generate substantial legal costs (Flesig, de la Peña, et. al. 1993, 1995, 1997, 1998).

Whereas formal lenders and semi-formal intermediaries essentially depend on an inadequate and high cost legal-judicial system to enforce property rights and settle claims, informal intermediaries do not. The latter economize on transaction costs because they operate on a small scale and within a social setting wherein credible verbal commitments can be made because of existing hierarchical and reciprocal social arrangements.

Prudential Regulations and Supervision:

Financial regulations exist to correct market failure arising from externalities, market power, and informational asymmetries between suppliers and demanders of financial services. Three broad areas of regulations are particularly relevant to rural finance: structural controls, prudential norms, and consumer protective controls. Structural controls govern entry and merger, geographic restrictions, and the range of services that different types of financial organizations can offer. Prudential controls seek to preserve the soundness and safety of individual financial institutions and maintain the public confidence in the stability of the entire financial system. Protective controls attempt to promote full information disclosure to protect the interests of consumers and provide for dispute resolution systems.

Structural Controls: Full service commercial banks and finance companies are not attracted to rural areas because of perceptions of high risk and low profitability. Financial organizations with a narrow range of services may be enticed but

many legal frameworks do not allow specialized or narrowing banking (exceptions Peru (Cajas Rurales, EDPYPEs) and Bolivia (FFPs)). Others set high minimum capital standards that favor the creation of a small number of financial entities as opposed to a multitude with low standards. The preference for a consolidated financial sector and the lack of diversity in institutional form is due to concerns about the high cost of supervising lowly capitalized entities that would not constitute a systemic threat. Also there is concern about institutional vulnerability created by licensing entities to operate in a high risk environment with a small capital base and limited asset diversification potential. In the region, nine countries require a capital minimum of US\$5 million or more to form a bank (Jansson with Wenner, 1997).

Prudential Controls: Rules on capital adequacy standards, limits on the concentration of risk, report requirements, loan documentation, and provisioning requirements are intended to safeguard financial systems and prevent banking crises. In the last decade prudential standards have generally improved across the region but specific rules and practices, specifically loan documentation, loan risk classification, and provisioning requirements, may be biased against collateral constrained, small borrowers and character based lending technologies. Currently, fourteen countries require documentation by law which poses a heavy transaction cost burden for small, low-income borrowers. Some of the laws call for audited financial statements, proof of business registration, credit bureau reports, notarization of contracts, sworn statements of assets owned by borrower and guarantor, etc. Thirteen classify loans for provisioning purposes according to end use. The classification of a small microenterprise or agricultural loans as a consumer loan may be too lax and the classification as a commercial loan may be too cumbersome and complex. In short, current practices create a mismatch between value at risk and provisioning and increase transaction costs for both lender and small borrower, consequently discouraging this type of lending (Jansson and Wenner, 1997).

Protective Controls: Financial disclosure on the part of intermediaries serves to inform interested parties about solvency and illiquidity. However, the presentation of information is not always easy to interpret nor to compare due to different accounting standards employed. This creates non-transparency for regulators, shareholders, and depositors. For consumers, full disclosure laws are not common in the region and thus true effective rates of interest charged or yields are not readily known to clients (Staking and Schultz, 1999). This lack of transparency is particularly bothersome in rural areas where clients have in general lower levels of educational attainment and the risk facing a deposit taking rural institution are significantly higher. The lack of transparency increases transaction cost, because more time and effort is needed to verify the health of a financial institution or the meaning of a financial contract.

Institutional Setting: The rural financial landscape is dominated by semi-formal (NGOs, credit unions, village banks, and cooperatives) and informal entities (supplier-traders, ROSCAs, and moneylenders). Formal financial institutions (banks and finance companies) are not as common. In repeated studies, transactions costs have been reported to be lowest for informal providers, next lowest for semi-formal entities, and highest for formal ones (Ladman, et.al, 1984; Cuevas et. al, 1987) Aside from legal regulations, the way these institutions are structured and operate generates different levels of transaction costs. The magnitude and distribution of these transactions costs have a bearing on access by small borrower-savers, potential for expansion, and operational efficiency. The broad determinants of transaction costs with a semi-formal or formal institution are (i) strategic vision and governance incentives, (ii) human resource management capacity (HRM), and (iii) choice of technology.

The strategic vision of a financial organization translates into a business plan which in turns determines internal control structures, shapes processes, and ultimately affects transaction costs. Each type of financial organization has distinct animating motivations. How consistent these visions are with internal control structures and production processes drives efficiency and potential for transformation and growth. For example, a commercial bank may focus on high income clients and rapidly growing business sectors in order to maximize profits. This strategy will tend to exclude small rural producers and the use of character based lending technologies. A credit union with its one vote rule, may become borrower dominated and promulgate lax credit policies that make borrowing low cost in the short run. In the long run, however, the lack of credit discipline is bound to lead to high delinquency rates and deteriorating asset quality which adversely affects depositors and could contribute to credit rationing and higher transaction costs in future periods. A credit granting NGO may be motivated by a social charity mission yet be asked by donors to become financially self-sustaining as quickly as possible. The clash between internal motivations and donor mandates could create confusion and divisions within the organization. If the discord is not quickly resolved, mixed signals could be sent to the client resulting in inappropriate product offerings,

delinquency problems, client desertion, and higher administrative costs. Lastly, the non-remuneration of the board of directors and the lack of management(staff) performance incentives in semi-formal institutions may also create little or no incentive to minimize transactions costs and improve overall financial performance. Instead of economizing transaction costs, attempts may be made to transfer them to clients.

The ability of management to motivate staff, control costs, and solve problems is essential in determining the success of any organization. In financial institutions, the combination of weak control-feedback systems, low staff productivity, and untimely decision-making, raises transaction costs unnecessarily. In a non-competitive environment these costs can be passed on to the client via the interest rate spread, but it ultimately limits the institution's ability to expand and innovate.

Lastly, the contract design or product has to be incentive compatible and meet client needs. If the lending or deposit mobilization technology does not match the characteristics of the low income clientele, transaction costs will be prohibitive and the product will not be demanded. For example, the use of asset based lending technologies tends to exclude the small producer. Contrarily, the use of group credit may be quite appropriate for collateral constrained borrowers. However, after a number of cycles, group credit schemes may become too onerous in terms of borrower transaction costs (costs in attending regular meetings, keeping financial records, etc) and the product may need to be supplemented with an individual loan product in order to minimize membership desertion. Similarly, the information technology that supports the product has to be functional and efficient, otherwise additional inefficiencies will be generated.

In summary, mismatches between client needs and products offered and misalignments between strategic vision, governance incentives, human resource management capacity, and information technology generate additional transaction costs and subsequently inefficiencies.

3.1.4 Consequences

Formal Intermediaries: Banks and finance companies depend on asset based lending technologies to cope with risk and imperfect information problems. This technology discriminates against small, collateral constrained borrowers and implies high transactions costs, for the medium and small scale entrepreneurs able to access credit. Because of weaknesses in the legal and regulatory framework, especially surrounding movable collateral, formal intermediaries are further constrained and are not eager to expand activities in rural areas. They tend to serve only a small proportion of the rural populace. The result is shallowness, credit rationing, and inefficiency.

Informal Intermediaries: Supplier-traders, ROSCAs, and moneylenders enjoy absolute information and transaction costs advantages due to proximity, multi-stranded relationships, willingness to accept a greater variety of collateral, and superior enforcement capacity, compared to formal rural intermediaries. Nonetheless, informal intermediaries have limited capital bases, tend to exercise market power, and are geographically bound. As a result, identical clients receive different loan terms and conditions (segmentation). The high interest rates charged cover higher risk faced but also include a monopoly rent. The informal sector's potential for independent growth and risk management is limited due to the lack of massive deposit mobilization capacity and covariability.

Semi-formal Intermediaries: NGOs, credit unions, village banks, and cooperatives enjoy some informational advantages over formal lenders but less than informal ones. These institutions tend to suffer from governance and free rider problems, tend to be dependent on external subsidies, and tend to be operationally inefficient. These problems limit both outreach capacity and financial self-sustainability.

4. Lessons Learned from the IDB's Rural Finance Operations

The Inter-American Development Bank (IDB) has been and continues to be one of the leading sources of development assistance to Latin America and the Caribbean. The IDB's rural finance lending program between 1961 and 1998 can be subdivided into three categories; (1) targeted agricultural credit for medium- and small-scale agricultural producers; (2) sector and regulatory reform; and (3) private enterprise credit and financial intermediary development. In these categories, the IDB has approved US\$4.4 billion, US\$4.2 billion and US\$3.7 billion, respectively. In comparison the World Bank approved US\$3.3 billion to be spent on agricultural credit projects between 1961 and 1992 in the Latin American and

Caribbean region and USAID has invested US\$2.3 billion in the period 1961-97.9

Through the review of 27 rural finance projects, existing evaluation documents on the topic, and staff interviews, the following main lessons learned were extracted from the IDB's lending experience in rural finance(Wenner, 1999).

4.1 Targeted Credit

- Targeted, subsidized credit programs distort rural financial markets, undermine the viability of many participating financial intermediaries, discourage savings mobilization, and disproportionately benefit higher income borrowers.
- Non-subsidized and more broadly-targeted wholesale credit projects can play a role in promoting the expansion and deepening of financial services to undeserved producers, but their role is limited. Although the evidence is not complete, it appears that under some conditions these operations can play a role in expanding and deepening rural financial markets. Those programs that succeeded in expanding rural producers' access to credit were carried out in countries with large agrarian sectors that has intermediaries present already in rural areas.
- For wholesale credit projects to avoid unintended negative effects, the interest rates charged to final sub-borrowers should be set on market terms, and rates charged to intermediary institutions should be set at levels that do not undermine their deposit mobilization activity. The Bank's experience has shown that small-scale borrowers are more sensitive to the non-financial costs of the transaction (processing fees, travel costs, and income lost due to delays in approval and disbursement) than to the financial costs (interest payments).
- The role of second tier, wholesale institutions is important in deepening financial markets but care should be taken to avoid the negative effects of arbitrary allocation and pricing of long term resources.

4.2 Sector and Regulatory Reform

- Laws governing the creation, perfection, and enforcement of security interests, moveable property collateral and the attendant regulations and institutions should be improved. Small borrowers often lack secure title to land or are unwilling to pledge it in a loan transaction; therefore, other formal collateral substitutes are needed.
- In the area of supervision, much also needs to be done to identify the biases that may impede rural and microfinance intermediation, especially in the areas of licensing, minimum capital requirements, asset risk classification, documentation, and provisioning.
- In order to promote change in the conditions for rural finance, operations must focus more specifically on this area. The Bank's experience has shown that reforms related to rural finance have very low probability of succeeding if included in complicated, multifaceted operations.
- Because so many reforms needed in rural finance are of an institutional nature, the gestation period tends to be long and thus the leverage associated with the fast disbursing nature of sector loans is diminished.
- Past experience with sector loans and technical assistance to promote reforms shows that particular attention must be paid to the political economy surrounding their implementation if these types of interventions are to be effective. Vested interests exist that benefit from the status quo and operations must be designed in ways that

9 Sources: Review of Bank Lending for Agricultural Credit and Rural Finance (1948-92), The World Bank, Washington D.C., June 1993. USAID's Center for Information and Dissemination.

deal with the threat of opposition to change that is likely to arise.

4.3 Institutional Strengthening of Financial Intermediaries

- The creation of sustainable financial intermediaries requires identifying organizations with strong leadership; a clear mission to assist the rural small and micro enterprise sector; a business like approach; a proven microfinance technology; and the creation of a partnership with these organizations to address institutional weaknesses. Therefore, the process of selection of institutions is crucial to success; the Bank's experience shows that broad consideration of alternative institutions and rigorous analysis of their actual and potential performance are essential.
- Innovations are needed in financial service delivery technologies to lower transaction costs and allow financial intermediaries to expand financial services in rural areas. Parallel interventions are needed to reduce the high degree of production and price risk in agriculture. Such parallel efforts should include appropriate investments in physical infrastructure, improved extension services, improved marketing, and an increase in the provision of insurance services.
- Building sustainable financial intermediaries capable of providing financial services access to small rural producers is a slow process that requires a commitment over a long period (5-10 years). Rules or customary norms that prohibit granting of resources to the same group on multiple occasions need to be reevaluated.

5. Actions and Recommendations

The promotion of more complete, efficient, competitive, and stable rural financial markets is a threefold challenge. First, efforts are needed to create an environment conducive for rural intermediation. More specifically, steps must be taken to improve the profitability of rural activities, reduce macro and sectoral risk for clients, improve information flows, and reduce legal impediments to efficient and low cost intermediation. Second, efforts are needed to improve retail capacity, namely by creating new financial institutions, forging links between formal and informal financial institutions, and strengthening existing formal and semi-formal institutions. Third, efforts are required to encourage the introduction and diffusion of other financial instruments such as deposits, crop insurance, commodity structure finance, hedging instruments, portfolio securitization, electronic cards, leasing, and factoring. These products would serve to better manage risk and liquidity and lower transaction costs.

5.1 Creation of a Favorable Policy Environment

5.1.1 Macroeconomic Stability and Policy Consistency

Fiscal, monetary, and trade policies affect the risk environment faced by financial intermediaries and the cost of funds.

The crucial variables for financial markets are the central government's deficit, the inflation rate, the interest rate, management of terms of trade risk, and the real effective exchange rate. While there are elements beyond the control of the government (capital movements and terms of trade), central governments can pursue consistency in policies and strengthen their countries ability to cope with external shocks. Specific areas of action include broadening the tax base, tax diversification, improving tax collection efficiency, setting precautionary fiscal targets, adopting budgetary rules that permit a quick response to external shocks, and adopt the use of medium term budgeting . A modicum of fiscal and monetary stability is a necessary condition for the promotion of deep, efficient, and competitive rural financial markets. Without price and exchange rate stability, investment planning is uncertain and the financial system becomes subject to disintermediation.

5.1.2 Appropriate Sectoral Economic Policies

Neutral sectoral policies are needed to lower transaction costs in rural financial intermediation (improvements in communications, transport, electricity) and to increase profitability in rural economic activities (absence of net transfers out

of agriculture). The principle areas of concern are public infrastructure investments, market based price incentives for agriculture, and non-farm incentive policies. Expenditures on rural infrastructure will increase rural productivity, lower marketing risk, and reduce financial transaction costs. Unfortunately, rural areas historically have been disadvantaged in the allocation of infrastructure resources. Agricultural taxation has diminished with the advent of price and trade liberalization programs in the late 1980s. However, Latin American and Caribbean agriculture is competing on unequal terms with other countries due to institutional and infrastructural weaknesses. Lastly, the promotion of non-farm investments and employment generation is needed in rural areas to diversify sources of household income, stimulate vertical integration, and stem migration to cities.

5.1.3 Clarification of Property Rights(Titling)

Lack of secure land tenure is a major obstacle to provision of medium and long term credit. Less than 50% of the privately owned land in LAC is titled and registered. Nonetheless, titling is not a sufficient condition to improve access to credit. Other complementary factors seem to be important such as larger farm size, higher levels of human capital, and proximity to major consumer markets. Therefore, titling efforts should be cautious and emphasize the use of modern technology (satellite imaging) to reduce cadastral mapping costs; integrate titling and registration procedures, issue universal requirements to register title; and modernize public registries.

5.1.4 Effective Legal Environment

A well functioning legal system is fundamental to the functioning of financial markets due to the intertemporal, promissory nature of financial transactions. In Latin America and the Caribbean, the secured transaction framework is generally inadequate and public registries are weak. Moveable collateral is not readily acceptable due to gaps in the law. Moreover, the lack of adequate enforcement of creditor claims, partly an exogenous historical endowment (French civil law tradition), increases risk and cost of rural financial intermediation thereby discouraging the entry of formal intermediaries into rural markets or outreach to more low income, collateral constrained clients. Informal intermediaries remain dominant in rural areas due to willingness to accept a wider variety of collateral and because they have superior enforcement capacity that is based on inter-linked contracts and monopoly power. This market power can be exploited to extract rents in excess of reasonable risk premiums.

5.1.5 Adequate Regulatory Environment

The lack of strong and appropriate prudential regulation and supervision in a liberalized setting increases the chances for banking crises, fails to protect investors and savers, and introduces biases against unsecured lending and small credit transactions. Particular areas of concern regarding rural financial intermediation are loan documentation, provisioning requirements, loan risk classification, sampling techniques, usury laws, and entry requirements. Inappropriate rules discourage formal intermediaries from serving rural, low income, small borrower/depositors.

5.1.6 Development of Enhanced Information Environments

The use of information in the valuation of risk is key in financial transactions and at all levels, macroeconomic, intermediary, household, the availability and reliability of information is less than desired. The presence of asymmetric information complicates the functioning of financial markets. Government can play a pivotal role in improving the situation through periodic surveys, the harmonization of accounting standards, and the promotion of transparency and openness in intermediaries through disclosure laws.

5.2 Development of Institutional Retail Capacity

The strengthening of retail capacity is a clear and fundamental need. The rural landscape is littered with many weak intermediaries. Specific areas of concern are governance incentives, quality of business management, and technology/contract design.. No particular institutional form has been shown to be dominant in the development finance

literature. Therefore institution building interventions should be multi-pronged and guided largely by country context, the quality of available leadership, and the level of institutional commitment to financial self-sustainability.

Five interventions are possible:

- \$ *Upgrade NGOs*
- \$ *Downscale Commercial Banks*
- \$ *Link to Formal and Informal Intermediaries*
- \$ *Restructure and Reform Existing Financial Institutions*
- \$ *Create New Financial Institutions*

Each type of intervention has its advantages and disadvantages, the choices are not mutually exclusive but depend on context. For example, several NGOs have successfully transformed themselves into regulated financial entities (Prodem—BancoSol; AMPES—Financiera Calpia; Ademi—BancoAdemi; etc.), however, the transformation process is expensive and requires very strong leadership, competent and committed staff, and sustained donor support.

Commercial banks have significant advantages—economies of scope, good management information systems, etc. However, without a strong strategic commitment to the sector and a willingness to change culture and technology, downscaling is not likely to be successful. Existing financial institutions such as state-owned agricultural development banks, *cajas rurales*, and credit unions have a checkered past and many failed reform attempts. Thus care must be exercised in determining whether reform, consolidation, or liquidation is the best course of action. Linking formal to informal institutions is a promising avenue but the layering of costs, agency problems, and effective coordination can be issues. Lastly, the creation of new financial institutions again is promising but the organic laws must be well designed to create proper good governance incentives. This route, however, will be costly and take time to bear results.

5.3 Promotion of Other Financial Services and Innovation

The array of available rural financial services is quite limited and the incompleteness of the market, especially insurance and risk management techniques, increases the cost of credit dramatically. The promotion of other services listed below would serve to more efficiently transfer risk and allow rural clients to better manage liquidity. The principal impediments to the expansion of these services are mostly legal and institutional ones.

Deposit Services

In order to promote voluntary deposit mobilization, several impediments need to be overcome. First, if the country has weak macroeconomic management then the regime imposes taxes on savers via high legal reserve requirements and inflation. These policies result in low positive and even negative real rates of return on savings instruments thereby discouraging savings mobilization. Second, ineffective supervision of deposit taking institutions or in its absence full and independent disclosure of risk jeopardizes the savings of low-income, unsophisticated clients. Third, inadequate regulatory frameworks that, for example, do not permit flexible hours of operation to suit the density of prospective clients and their work schedules (e.g., requirements to be open a fixed number of days and hours, prohibitions on mobile banking units, etc) make the capture of savings from low income rural clients difficult because the cost of fixed investments may be too great to justify an extensive branch network in rural areas. Fourth, the lack of explicit deposit insurance as a last resort form of protection for small savers may influence the decisions of risk averse savers. Fifth, the transaction cost of mobilizing small savings are high and there is concern with the volatility of sight deposits which is the preference of low income individuals. At present service delivery technologies are not well developed and market research and product testing is needed.

Insurance and Hedging Instruments

Property and liability insurance is important in reducing risks in rural financial intermediation. For farm households, the availability of formal insurance can greatly reduce welfare reducing contingencies. For financial intermediaries, clients with access to insurance can reduce credit risk. In the past, publicly funded crop insurance schemes have generally not worked and private crop insurer have either been deterred by the publicly subsidized schemes or catered only to large, commercially

oriented farmers. The majority of medium- and small-scale farmers remain excluded because of high administrative costs in serving them. Given this state of affairs, new schemes will likely have to be single peril (drought, windstorm, etc) to avoid moral hazard and adverse selection problems and keep premiums affordable. Geographic coverage would have to be sufficiently wide so that the insured threat is negatively correlated. One such scheme is a rainfall lottery that is in a pilot phase in Nicaragua.

In addition, other risk reducing instruments such as forward, futures, options, and swaps need to be promoted. These other instruments help to manage price and exchange rate uncertainty. In order for them to be more widely used in internal markets the legal enforcement environment will have to be improved and more commodity exchanges developed. The challenge of thin or illiquid markets will have to be overcome.

Warehouse Receipts, Inventory Credit, Accounts Receivables, and Supplier Credit

Input suppliers, feedlot operators, abattoirs, grain silo operators, processing plants etc. could play an even more significant role in granting credit to small agricultural producers and small businesses if they could better leverage their assets. Currently, many of these operators receive loans from commercial banks to finance working capital needs but the amount is limited by the value of real estate collateral that can be pledged. The expansion of supplier or commercial trade finance will require wider use and acceptance of warehouse receipts, of inventory, and of account receivables.

At present licensed warehouses exist in several countries and issue receipts that can be endorsed, thus providing the endorsee the collateral of underlying inventory deposits in the warehouse and thus the possibility of financing. Current warehousing systems, however, are plagued with uneven grading, inefficient storage procedures, high capitalization costs, and documentation that is altered or counterfeited without severe penalties, and limited competition.

With regards to inventories and accounts receivables, the main impediments to more widespread use are problems in establishing a security interest at reasonable cost and gaps in the law. For example, accounts receivables in many systems do not have legal standing unless the underlying claim is reduced to a promissory note (pagaré), which is cumbersome and not appropriate for trade finance.

Leasing

In rural areas where medium and long term financing is particularly scarce, leasing of equipment represents an attractive alternative but it is still largely an urban phenomenon. In the last 30 years, leasing has grown rapidly in the developing world, particularly in Asia. In Latin America, slower growth is attributable to more volatile macroeconomic conditions, weak regulatory frameworks, and tax disincentives.

Electronic Cards

The use of debit, credit, and smart cards promises to significantly reduce transaction costs for rural clients. The obstacles that check the widespread adoption of electronic cards in rural areas are the following: (1) difficulties in calculating cash flows for the self-employed; (2) nonexistent credit bureaus or bureaus that contain only negative information on mostly large firms and urban wage earners of limited duration; (3) postal services that are unreliable, complicating billing and payment processes; (4) low levels of educational attainment in certain countries; (5) unreliable electric and telecommunication services; (6) and the use of competing and incompatible networks and proprietary standards that limit client access only to the machines of the issuing institution.

6. Conclusion

Lack of access to formal financial services by small-scale borrowers and savers has been the perennial problem in rural finance. Access is difficult for this class of client, who happen to be the majority of the rural population, due to a triad of problems—risk, imperfect information, and transaction costs. Small-scale clients represent prima facie a higher risk to formal lenders and insurers due to limited means to mitigate risk at both the household and at the level of the intermediary. The absence of real collateral aggravates the situation. Information on character to an extent can serve as a substitute for real guarantees but information tends to be is asymmetrically distributed and costly to obtain and transmit in financial markets. As a result, credit markets tend to segment and rationing may appear. To further complicate matters, the physical setting, marked by client dispersion and poor communications systems, weak and inadequate legal systems, and misalignments between mission, management capacity, and employed technology, within formal and semi-formal intermediaries, increases transaction costs. Since low income persons are more sensitive to transactions costs than higher income individuals, low income persons can not effectively demand financial services and are excluded from formal markets.

In the past government led interventions focused on the symptoms of the problem—low access rates—and relied on interest rate subsidies, quotas, and state-owned institutions to supply financial and insurance services. The results were not encouraging. The principle lessons learned were (1) subsidized, directed credit undermined intermediaries, disproportionately benefited larger entrepreneurs, and created distortions; (2) targeted but non-subsidized credit programs real limited number of rural producers; (3) policy based lending succeeded in macrofinancial liberalization but a series of legal and micro level impediments remain; and (4) selected institutional interventions have a mixed record, few outstanding successes, many mediocre or undefined results due to the age of the project and lack of data.

Looking toward the future, concerted action by both the public and private sector is being recommended in three areas; (1) creation of a favorable policy and legal environment; (2) institution building; and (3) the promotion of a wider array of financial services—deposits, insurance, hedging instruments, and others(credit cards, leasing, warehouse receipts, etc.) The principal role of the state would be to construct a favorable policy environment.

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Table 1. Selected Indicators on the Significance of the Rural Sector and Financial Depth

Country	Population			Agriculture, For. & Fish. as % of GDP in 1996	Annual GDP Rate of Growth 1990-1997		M2 as %GDP		
	000's	% rural	% empl. (index 1990=100)		Ag. For. & Fisher.	Total GDP	1990	1997	%change
Argentina	34,587	12	1.50	6.7	2.8	5.2	11.5	24.0	109%
Barbados	261	54	4.60	4.3	0.9	0.5	50.7	63.3	25%
Belize	210	52	38.30	20.4	7.3	4.4	40.8	51.4	26%
Bolivia	7,414	40	22.10	11.7	0.8	4.2	24.5	48.3	97%
Brazil	161,789	22	26.10	7.2	3.9	1.9	26.5	42.1	59%
Chile	14,210	16	15.40	7.6	5.5	7.7	39.9	43.4	9%
Colombia	35,101	28	1.30	14.2	2.2	4.1	19.3	31.7	65%
Costa Rica	3,424	51	21.60	15.4	2.6	3.5	28.0	41.2	47%
Ecuador	11,460	41	6.60	13.0	2.3	3.8	21.8	34.1	57%
El Salvador	5,768	48	28.10	13.6	1.9	5.2	30.6	42.1	37%
Guatemala	10,621	61	26.10	24.1	3.0	3.9	21.3	65.2	207%
Guyana	825	65	NA	35.8	5.7	6.5	69.8	65.2	-7%
Haití	7,180	66	NA	36.6	-2.8	-3.4	37.4	34.1	-9%
Honduras	5,654	56	37.20	19.8	3.1	3.3	31.7	36.7	16%
Jamaica	2,431	39	27.10	8.7	4.4	1.0	42.2	49.3	17%
México	91,145	26	22.50	7.4	1.5	2.7	23.7	28.3	19%
Nicaragua	4,124	42	13.10	33.7	3.9	2.4	5.8	60.2	946%
Panamá	2,631	44	NA	8.2	1.7	5.1	41.1	73.3	78%
Paraguay	4,828	48	3.90	26.9	2.4	2.8	19.8	30.7	55%
Perú	23,532	29	21.60	7.2	3.4	4.2	20.7	25.8	25%
Rep. Dominicana	7,823	38	14.50	14.0	3.4	3.6	23.0	27.8	21%
Suriname (a)	418	55	6.10	11.2	-0.6	-0.8	122.3	88.8	-27%
Trinidad & Tobago	1,292	33	10.60	2.5	3.3	1.9	44.9	48.2	7%
Uruguay	3,186	10	4.80	12.1	3.7	3.7	61.2	43.0	-30%
Venezuela	21,844	14	13.20	4.9	1.1	3.8	28.9	21.5	-26%

(a) 1993 data is presented in lieu of 1997.

Sources: IADB database and International Financial Statistics, IMF.

Table 2. Credit to Agriculture as a Percent of Total and as a Percent of Agricultural GDP

Country	Credit to Agriculture as a % of total			Credit to Agriculture as a % of Ag. GDP			
	1984-86	1990-92	1994-96	1984-86	1990-92	1994-96	
Bolivia	-	18.8	12.2	-	36.0	40.4	*
Brazil		11.3	10.7		60.5	40.5	*
Costa Rica		23.4	20.0		20.9	18.9	*
El Salvador	11.1	18.0	12.1	21.4	42.9	28.4	**
Guatemala	17.2	14.2	10.2	42.6	19.8	28.5	**
Honduras	26.5	22.9	17.9	45.7	36.6	23.1	*
Jamaica	15.1	9.2	5.3	66.1	31.5	14.2	*
Mexico	15.3	9.5	7.7	47.2	37.0	53.8	*
Perú	27.0		5.6	28.9		8.3	**
Rep. Dominicana	12.7	13.8	10.8	19.4	15.5	18.4	*

* outstanding balance at end of year.

** annual commitments

Sources:

Bolivia:	Superintendencia de Bancos y Entidades Financieras, Boletines Informativos and Banco Central, Información Económica General (http://www.bcb.gov.bo/)
Brazil:	Brazil: Boletim do Banco Central do Brasil, Suplemento Estatístico and Anuário Estatístico do Brasil, (IBGE 1996)
Costa Rica:	Banco Central (http://websiec.bccr.fi.cr/indicadores/cuadro.web?sector=3&doc=2&cuadro=11) and IADB Data Set.
El Salvador:	Revista Trimestral del Banco de Reserva de El Salvador.
Guatemala:	Banco de Guatemala, Boletín Estadístico y http://www.banguat.gob.gt/pim/envolver.asp?karchivo=pim20
Honduras:	Banco Central de Honduras, Boletín Estadístico y http://www.bch.hn/paginas/frameset.htm
Jamaica:	Economic and Social Survey of Jamaica and IADB Data Set
Mexico:	Indicadores Económicos de la Dirección de Investigación Económica del Banco de Mexico and IADB Data Set.
Perú	Banco de Reserva del Perú, Boletín Mensual, and Información Financiera Mensual, Superintendencia de Banca y Seguros del Perú
Rep. Dominicana	Banco de la República Dominicana, Boletín Trimestral y Boletín Mensual.
IADB Data Set:	http://www.iadb.org/int/sta/English/StaWeb/dbase_esdb_frame.htm

Table 3: Financial Depth and Efficiency Indicators

Country	Domestic Credit (% GDP)		Interest Spread (Lending minus Deposit Rate percentage points)		Spread over LIBOR	
	1990	1995	1990	1995	1990	1995
Argentina	32.4	25.6		5.9		11.8
Bolivia	33.3	57.5	18	32.1	33.5	45
Brazil	87.2	39.5				
Chile	72.9	58.4	8.5	4.5	40.5	12.2
Colombia	36.3	45	8.8	10.4	36.9	36.7
Costa Rica	29.9	20.3	11.4	12.8	24.3	30.7
Dominican Republic	29.1	28.8				
Ecuador	17.2	32.3	-6	12.4	29.2	49.7
El Salvador	32	40.6	3.2	4.7	12.9	13.1
Guatemala	17.4	19.4	5.1	13.3	15	15.2
Haiti	32.9	33.7				
Honduras	40.9	26.3	8.3	15	8.8	21
Jamaica	34.8	30.7	6.6	20.4	22.2	37.6
Mexico	43.9	53.1				
Nicaragua	206.6	189.4	12.5	8.8	13.7	13.9
Panama	55.9	71.8	3.6	3.9	3.7	5.1
Paraguay	14.9	22.7	8.1	9.8	22.7	25
Peru	16.2	11.4	2334.9	20.6	4766.2	30.6
Trinidad and Tobago	58.5	54.1	6.9	9.1	4.6	9.2
Uruguay	60.8	38.9	76.7	60.9	166.2	93.1
Venezuela	37.4	37	.4	7.5	19.9	26.2

Source: World Development Indicators, 1997.

Table 4:
REAL DEPOSIT INTEREST RATES

COUNTRY	1990	1991	1992	1993	1994	1995
ARGENTINA	-229.98	170.18	-109.70	-37.10	-7.90	-6.40
BARBADOS	3.18	0.02	0.23	-0.53	0.68	-5.48
BELIZE	5.14	-5.84	6.12	-6.12	5.85	-6.75
BOLIVIA	6.70	-2.40	2.40	-11.70	11.10	-14.70
BRAZIL	6456.60	-8953.40	472.60	95.20	551.50	588.30
CHILE	13.67	-18.27	0.32	-6.72	2.66	-6.16
COLOMBIA	7.20	-6.00	6.80	-10.20	-0.30	-4.10
COSTA RICA	2.16	7.54	-1.38	-5.52	-6.00	-6.00
ECUADOR	-5.05	5.25	-7.26	12.86	-7.59	-1.81
EL SALVADOR	-6.10	-3.60	1.71	-4.91	0.31	7.09
GUATEMALA	-23.00	15.00	-8.80	-14.40	0.40	1.50
GUYANA	-34.10	72.00	-72.00	-1.30	-5.70	-12.50
HONDURAS	-14.50	25.20	-22.50	-2.80	3.60	-1.50
JAMAICA	-5.92	56.32	-55.53	15.53	-6.57	-3.53
MEXICO	4.64	-8.54	-5.60	-1.60	0.18	-5.98
NICARAGUA	-7475.70	2732.80	-2730.70	8.70	-8.30	8.40
PARAGUAY	-15.18	1.28	-1.67	-7.33	4.95	-1.95
PERU	-5152.70	-2030.10	-239.00	-97.00	-13.80	4776.30
TRINIDAD/TOBAGO	-5.14	-2.16	1.99	0.71	0.49	3.81
URUGUAY	-14.50	4.20	-26.80	-6.80	-13.90	-0.40
VENEZUELA	-12.82	6.42	-3.10	0.30	4.02	2.68

Source: International Financial Statistics and IDB Database

Table 5. Rural Survey Estimates of Rates of Participation in Credit Services (%)

Population surveyed and year of survey		Borrowers as a percent of population of reference			Source
		from any source, formal or informal	from formal sources alone or in addition to informal	from informal sources only	
Bolivia	Cochabamba Valley, farms, 1990	52%	-	-	Reported in World Bank 1998
Costa Rica	Various regions, farms, 1987	57%	40%	17%	Villalobos, 1994, as reported in World Bank 1998
El Salvador	rural households, 1995	12% borrowed in 1995; 20% had outstanding debt balances	5% borrowed in 1995; 7% had outstanding debt balances	7% in 1995	World Bank 1998
Guatemala	rural entrepreneurs, 1995-1997	26%			World Bank 1999a
Honduras	Farms throughout the country (census year 1 May 1992-30 April 1993)	6.7% (probably from formal sources)			González-Vega and Torrico, 1995
	Yoro, Ocotepeque y El Paraíso; farmers (<35 ha), 1994	65% in 1994; 70% in 1994-1990	21% in 1994; 29% in 1990-1994	44% in 1994	González-Vega and Torrico, 1995
Mexico	Guanajuato, Puebla and Veracruz, 1994				World Bank, 1995
	farmers	38%	12%	26%	
	non-farm entrepreneurs	52%	6%	46%	
	combined farm & non-farm	45%	8%	36%	
	Ejido Households, 1994	30%	28%	2%	World Bank, 1999b
	1996	21%	12%	9%	
	1997	20%	13%	7%	
Peru	Farms (1,390,877) throughout the country - 1972				Segundo (1972) y Tercer (1994) Censo Nacional Agropecuario (reported in FAO-MINAG-INEI 1996)
	Costa	17%			
	Sierra	3%			
	Selva	11%			
	Nationwide:	5%			
	Farms (1,745,773) throughout the country - 1994				
	Costa (248,809 farms)	16%	9%	7%	
	Sierra (1,204,423 farms)	5%	3%	1%	
	Selva (292,721 farms)	5%	3%	2%	
	Nationwide:	6%	4%	2%	
	rural households, 1994	16%	0.2%	15.8%	Encuestas Nacionales de Niveles de Vida (ENNIV), 1994 & 1997
	1997	22%	2%	20.4%	

Table 6: Rural Survey Estimates of Rates of Participation in Savings Services (%)

Population surveyed and year of survey		Depositors as a percent of population of reference			Source
		formal & semi-formal deposits* at the time of survey	now or in the past	informal sources or informal forms of savings	
Guatemala	rural entrepreneurs, 1997	10.7%	17.5%	1% (moneykeepers, NGOs, other cooperatives)	World Bank 1999
Honduras	Yoro, Ocotepeque y El Paraíso; farmers (<35 ha), 1994			57% of sample farmers keep animals as savings reserve. 59% keep savings in the form of grain reserves; 48% keep	González-Vega and Torrico, 1995
	% with deposits in banks***	12%			
	% deposits in cooperatives***	6%			
Mexico	Poblaciones rurales y semiurbanizadas, 1994**				SHCP 1994 as reported in Mansell, 1995
	municipios con 5,000 a 10,000 hab	6%	14%		
	10,000 a 15,000 hab	10%	18%		
	15,000 a 20,000 hab	10%	14%		
	total (5,000 a 20,000 hab.)	8%	15%		
	Guanajuato, Puebla and Veracruz, 1994	9%	26%		
	rural entrepreneurs (farm & non-farm)				