

**INNOVATIVE APPROACHES TO RURAL LENDING:
FINANCIERA CALPIÁ IN EL SALVADOR**

by

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Sergio Navajas and Claudio Gonzalez-Vega*

1. Introduction

In the last decade or so, poor people around the globe have benefited from a growing number of microfinance organizations (MFOs) that have emerged to offer them several financial services, with a heavy emphasis on short-term credit. In Latin America, this growth of the supply of microfinance has not been uniformly distributed. In contrast to Asia, most of the successful MFOs in this part of the world have bloomed in urban areas. This has not been the result of a lack of public interest in an expansion of the supply of financial services to the rural population; instead, it has reflected the formidable challenges encountered in the development of appropriate financial technologies for the rural environment (Gonzalez-Vega, 1999a). There are, indeed, some organizations that have devoted their effort and attention to the provision of financial services in rural areas, but there is no parallel between their limited success and the major outreach and sustainability already achieved by the best urban Latin American MFOs.

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Given increased interest in this challenge, it is important to understand how a few financial organizations have been successful in reaching the rural areas. One of these organizations has been Financiera Calpiá in El Salvador.¹ Financiera Calpiá has been a leader in Latin America, prominent for the innovations needed to further expand the frontier of finance. To understand the lending technology of a MFO such as Calpiá, the problems this technology has solved, and the challenges the organization still faces is key in drawing lessons about what can be done and what cannot be done in rural lending.

A better understanding of the mechanics and procedures of a given lending technology is not enough, however, to be able to replicate it. One must be extremely cautious in this effort and must take into account the particular environment where the technology already functions successfully: Is there a conducive regulatory framework? What does the target market look like? One must also consider the human resources needed for this venture: Is the required human capital available? What training opportunities are needed to increase the skills of the staff? Finally, the organization must be able to tie these elements together: Has an institutional design, with the appropriate set of incentives, been established for successful implementation of the technology? These issues cannot be resolved *a priori* by any organization; lengthy learning processes are needed to accumulate the information capital needed to bring costs and risks down to reasonable levels (Gonzalez-Vega, 1998b).

In addition to this introduction, the paper is organized in six parts. The first part briefly discusses the difficulties of rural lending, in order to identify the problems that Calpiá's lending technology has been asked to solve. The second part describes the Salvadoran context, with emphasis on the target markets reached by Calpiá and on the obstacles emerging from the environment. The third part presents a snapshot about Financiera Calpiá. The fourth one identifies the general principles followed by Calpiá in designing and implementing its lending technology. The fifth part describes the rural lending technology of Calpiá in depth. This part examines **actual** procedures, as they are implemented, and, when possible, it compares the procedures used in rural areas with those used in urban areas. This part also discusses, step-by-step, the problems that each procedure solves during the lending process. The last part summarizes lessons, presents conclusions, and explores future challenges.

2. Why Is Rural Lending Difficult?

Any lender faces risks each time a loan is disbursed. This occurs because lenders sell a product (loan contract) for which they do not receive the price (principal and interest) immediately. They only receive a promise of uncertain future repayment. This is why lenders care about the future behavior of their customers. Given imperfect information, incompatible

¹ In Nahuatl, Calpiá means a small box used to store savings, usually under the ground.

incentives, and limited mechanisms for contract enforcement, the lenders' ability to correctly predict and encourage repayment is crucial for their success (Navajas, 1999a).

The specific manner in which a lender resolves these problems is called a *lending technology*. Different lenders use different lending technologies to accomplish similar results. Moneylenders, for example, use informal mechanisms to guarantee repayment whereas, in contrast, commercial banks base their technology in establishing formal mechanisms (audited financial statements, collateral that is foreclosable in court, credit rating tools) to guarantee repayment. Several MFOs have been able to adopt many of the features of informal lending within an institutional framework. The success of these MFOs has been linked to their flexibility in systematically adapting non-traditional lending technologies. Moreover, different lending technologies have created comparative advantages in reaching particular market niches and have matched different lending procedures with different types of potential clients (Navajas, Gonzalez-Vega and Hopkins, 2000).

Rural lenders have to solve the same problems of information, incentives, and uncertainty about contract enforcement as any other lender, but the hurdles they have to overcome are even more formidable (Gonzalez-Vega, 1999a; Zeller *et al.*, 1997). The additional challenges faced by rural lenders result from the following features:

- (a) A greater heterogeneity of the clientele. In contrast to urban firm-households, rural dwellers differ among themselves not only in their skills but also in a number of characteristics of their surroundings (soil quality, microclimate, access to irrigation, and location) and of their cultural background (language, customs).
- (b) A greater exposure to systemic risk. Drought, floods and sudden variations in commodity and input prices are examples of shocks that can easily wipe out all crops or all farmer profits in a region. These shocks are an inevitable part of rural life and are reflected in a high covariance of local incomes.
- (c) A greater dispersion and low density of the clientele. Geographic dispersion increases transaction costs for both borrowers and lenders while low density of the clientele makes it harder to dilute fixed costs of lending.
- (d) The seasonality of rural activities. Rural life, especially for farmers, centers about sowing-and-harvest-time, thereby creating periods of limited liquidity (when loans are needed) and periods of excess liquidity (when deposit facilities are needed). Seasonality also makes liquidity management (local intermediation) more difficult for specialized rural lenders.
- (e) The biological rigidity of agricultural cycles. Rural lenders cannot use very short terms and frequent payments as a monitoring device, in view of the lumpiness of borrower cash flows and, most of the time, only a one-lump-payment loan fits the demand. This rigidity limits the type of lending technologies that can be used in the rural areas.

- (f) The small size of the transactions. The levels of poverty that persist in rural areas reduce loan amounts. Loans are typically small and do not tend to grow over time (*e.g.*, the fertilizer requirements of a small farmer do not vary much with each agricultural cycle). When lending costs are independent of loan size, high interest rates are needed to cover the average costs of making small loans. Average borrower transaction costs are also high because of the small size of loans.
- (g) The lack of borrower assets that may become useful collateral for lenders. In some countries (*e.g.*, Bolivia), legal constraints from agrarian reform rules limit the plots of land that may be used as collateral. In other cases, enforcing contracts is difficult or extremely costly.
- (h) The absence of standardized information. Standard lending tools such as financial statements or credit histories do not exist in rural areas. Their absence increases the cost of evaluating creditworthiness.

In short, in addition to the typical problems encountered in lending to the poor, rural lenders have to deal with problems due to the special characteristics of the rural setting. Lending technologies need to be adjusted, therefore, to address these special issues. Only a few MFOs in Latin America have been able to transfer their innovations in lending technologies from the urban to the rural areas. One of the most successful MFOs in undertaking this task has been Financiera Calpiá in El Salvador.

3. El Salvador and Financiera Calpiá: Synergy that Works

To fully appreciate the challenges that Financiera Calpiá has faced, it is useful to briefly illustrate some of the characteristics of the host country that are relevant in understanding the nature of the technology that has been appropriate for this environment (Gonzalez-Vega, 1998a). These features have included:

- (a) El Salvador is one of the most densely populated countries in the continental Western Hemisphere (250 inhabitants per square kilometer). The challenges of rural finance, therefore, are not more formidable than in less densely populated countries, such as Bolivia. El Salvador is, however, a poor country. By 1997, the UNDP Human Development Index ranked El Salvador in the 107th position out of 174 countries (UNDP, 1999). This was only better than Bolivia, Haiti, Honduras, Guatemala, and Nicaragua. In the 1990s, nevertheless, the economy grew rapidly and per capita incomes increased, although the dynamism that followed the Peace Accords and early structural adjustment programs was already declining towards the end of the decade (Lardé de Palomo, 1999).
- (b) Poverty in El Salvador is not uniformly distributed. By 1997, about 62 percent of the rural population was considered to be poor vis-à-vis 48 percent of the urban population

(Rivera Campos, 1999). Rapid growth in the 1990s resulted in a substantial reduction of poverty in the urban but not in the rural areas (Morley, 1997). This was due, in part, to the low productivity of labor in agriculture and to an overvalued domestic currency (mostly resulting from massive remittances from abroad), which further reduced the profitability of agriculture. Furthermore, rural incomes have been extremely volatile, and the rural population has had recourse to few efficient mechanisms to manage risk (Beneke de Sanfeliú, 2000).

- (c) A war-damaged infrastructure increased transaction costs and reduced degrees of market integration. The civil war also hurt schooling rates, slowing down the process of human capital accumulation. Thus, transaction costs are high, despite the small size of the territory (Lardé de Palomo, Gonzalez-Vega and Argüello de Morera, 2000). Toward the end of the decade, nevertheless, the Government was investing heavily in rural roads and schools.
- (d) Weak institutions, outdated legal systems, and shortcomings of the state's organizational framework have further increased the transaction costs of financial contracts. Inadequate agrarian legislation has constrained both productive uses of land and the potential use of land as collateral. A weak institutional infrastructure has delayed the incursion of banking into the rural areas, while the dominant state-owned financial institutions have been plagued by political intrusion and lack of sustainability. In general, social capital has been shallow, while the culture of loan repayment has been undermined by frequent loan pardoning by the Legislature.

Beginning in 1979, a civil war sparked violence across the country. The war lasted 12 years, and it destroyed not only lives (the death toll was around 75,000) but also institutions and opportunities for economic growth. The rural areas suffered the most. Violence combined with inappropriate policies (import-substitution industrialization, inefficient agrarian reform, and state-owned banking) contributed to the country's impoverishment. During this period, average per capita GDP decreased 1.4 percent per year.

The 1992 Peace Accords opened a road for political and economic reforms, including privatization of the banking system, except the *Banco de Fomento Agropecuario* and *Banco Hipotecario*, and a reduction of protectionism (Boyce, 1995). Both war and peace attracted donors of all sorts, willing to ameliorate the consequences of the civil war. The provision of financial services to the poor was left to a patchwork of donor-funded programs, and credit became mostly a palliative for the poor (Danby, 1995).

A credit program sponsored by the German Technical Assistance Agency (GTZ) was the predecessor of Financiera Calpiá. The program was established in an NGO called AMPES (*Asociación de la Mediana y Pequeña Empresa*), and it began operations in 1988, before the war was over, by offering loans to AMPES associates. The *Servicio Crediticio* of AMPES was thus part of the inflow of donor funds, but from the very beginning there was a clear understanding

that the program was not about subsidized credit and that the loans were not transfers, but that loans must be repaid.

Having to start operations in an environment of not-so-rigorous financial NGO activities and of a missing repayment culture forced the organization to invest considerably in signaling its true intent: to create a sustainable source of quality financial services for a heretofore underserved market segment. This attitude was strengthened when it was decided that the *Servicio Crediticio* would make loans, based only on considerations of creditworthiness, to both AMPES members and non-members. The steady growth of a healthy portfolio, despite the unfavorable environment, strengthened through the technical assistance of Internationale Projekt Consult (IPC), led to the transformation of the *Servicio Crediticio* into Financiera Calpiá, chartered as a regulated financial intermediary by the Central Bank in 1995.

3.1 The Clients

The market segments reached by Financiera Calpiá are both in urban and in rural areas. In urban areas most clients are microentrepreneurs, whereas in rural areas the potential clientele ranges from traders to farmers to microentrepreneurs and is therefore more heterogeneous. Indeed, Calpiá's potential clientele includes most of the productive rural households otherwise without access to formal financial services. Thus, the range of potential influence of Calpiá in the rural areas is broader and more diverse than for its urban counterpart. Several features condition this MFO's supply of financial services in the rural areas.

First, the rural areas are poorer than the urban areas, and poverty has not declined in the rural areas as fast as it has in the urban areas; as a result, urban-rural income differences have widened. By 1991-92, 54 percent of the urban and 66 percent of the rural population were considered to be poor. By 1997, these proportions had declined to 39 percent of the urban and 61 percent of the rural population, respectively (Ministerio de Economía, 1998). The UNDP Human Development Index for the rural population of El Salvador was comparable to the Index for Zimbabwe.²

Second, while on average, in real terms, GDP grew 4.7 percent in the 1990s, the agricultural GDP grew only 1.4 percent per year. Moreover, the behavior of the agricultural GDP was more volatile. During the 1990s, negative rates of growth were registered four times, along with a peak of 8 percent of annual growth in 1992 (Beneke de Sanfeliú, 2000). Third, rural financial markets are shallow. Access to formal financial services, in general, and to loans, in particular, has been very limited. According to a BASIS survey of rural households, in 1997 only 7.9 percent of all households had had access to credit from a formal organization (Table 1).

The current situation of the Salvadoran rural financial markets has been in part the result of a series of ill-designed policies (mostly inherited from the past), institutional shortcomings (either inappropriate lending technologies or inadequate organizational designs), and the intrinsic

² The Human Development Index for rural El Salvador was computed on the basis of a 1998 rural household survey conducted by The Ohio State University and FUSADES within BASIS.

difficulties of providing financial services to the rural sector. The absence of effective mechanisms for the transfer of best practices in lending technologies recently led the authorities to create, with assistance from the European Union, the second-tier organization FundaMicro.

Table 1 reports various degrees of access to different types of sources of loans for rural households in El Salvador. All possible sources, from moneylenders to banks, are considered. Not counting informal sources of loans, only about one-fifth of all rural households had access to formal and semiformal sources of credit, including merchants and input suppliers, in 1997.

Table 1. Rural Household Access to Credit in El Salvador, 1997 ^(a)

		Percentage
Formal	Banks	1.4
	Non-Banks	6.4
	<i>Sub-Total</i>	7.9
Semiformal	Non Financial ^(b)	6.4
	Cooperatives	2.2
	NGOs	3.5
	<i>Sub-Total</i>	12.2
Informal	Market ^(c)	15.9
	Non-Market ^(d)	6.4
	<i>Sub-Total</i>	22.3
With Access		42.4
Without Access		57.6

(a) A household is considered to have had access to credit if it either had a loan in 1997 or in 1997 it had outstanding debt acquired during the 1994-1997 period. In this classification, a household's access to credit is ranked according to the most demanding source (banks being the most demanding in acknowledging creditworthiness). If a household had access to loans from both a more and a less demanding source, it was classified only once, as belonging to the more demanding category. This method avoids double counting.

(b) Non-financial are those organizations that provide relatively large loans for specific purposes as part of their non-financial business; for example, the *loteadoras* (developers) that sell plots of land on credit.

(c) Informal *market* intermediaries are all informal credit providers for whom credit is one of the main commercial activities that they undertake.

(d) This category groups all informal credit providers for whom credit is not their regular business activity (for example, relatives and friends).

Source: OSU/FUSADES BASIS 1998 Rural Household Survey and authors' calculation

Formal financial organizations (banks and *financieras*) matter because they can offer a broader menu of financial services to the rural population, ranging from deposit facilities to fund transfer instruments as well as varied loan products (short-term liquidity loans, long-term investment loans). In the classification used for this table, formal has been equated to regulated by the financial authorities. Semiformal organizations are institutions established according to some legally authorized form, which rely on some combination of legal (formal) and social (informal) mechanisms to ensure loan repayment but which are not supervised by the Superintendency of Financial Institutions. Cooperatives as well as NGOs have been classified in this group along with most sources of merchant and trade credit (input suppliers).

The current structure of the formal financial sector in El Salvador is relatively recent. At the end of the 1980s, the banking system was all state-owned. By the turn of the century, most banks had been privatized, with three banks remaining under the government's control (*Banco de Fomento Agropecuario* -BFA, *Banco Multisectorial de Inversiones* -BMI, and *Banco Hipotecario*). Currently, Financiera Calpiá is the only supervised non-bank financial intermediary, as the other *financieras* disappeared with the financial crisis of 1998 and as the Central Bank eliminated the charter of *financiera*.³ The semiformal sector includes another public-sector entity: the *Federación de Cajas de Crédito* (FEDECREDITO), which functions as an apex for about 50 savings and credit associations and several workers' banks, while a number of private credit unions operate under the second-tier umbrella of the *Federación de Cooperativas de Ahorro y Crédito de El Salvador* (FEDECACES).

The presence of commercial banks in the rural areas is minimal. Together, the private commercial banks reach around 2,000 rural clients. In contrast, BFA has a clientele of about 40,000 borrowers, and it operates the largest network of branches in the countryside. The BFA, however, has suffered from frequent political intrusion, inadequate internal control, and high arrears rates.⁴ It is currently in a process of restructuring, another one in a series of failed attempts to deal with the problems emerging from the weak property rights and governance design of the organization. A number of small NGOs offer loans in the rural areas, using different lending technologies. CAM/FINCA is the largest of these NGOs. This is an USAID-sponsored organization that lends according to a village banking technology. By 1998, CAM/FINCA had more than 15,000 clients.

In the rural areas, therefore, the main competition for Financiera Calpiá comes from a state-owned bank that is in the midst of redefining its mission (with suggestions that it will focus all of its activities on microfinance) and of seeking new lending technologies to offer better service at cost-covering interest rates. The other important source of competition is CAM/FINCA, a large NGO that focuses on lending to the very poor.

³ The charter of *financiera* was recently (1999) eliminated. Thereby, Calpiá is an exception and it has to become a bank in a few years.

⁴ Arrears at BFA, defined as portfolio at risk over total portfolio, reached 28 percent in 1999.

4. Financiera Calpiá: A New Lender in El Salvador⁵

The origins of Financiera Calpiá can be traced back to 1988, with the creation of the *Servicio Crediticio* at the *Asociación de la Mediana y Pequeña Empresa*. AMPES is a not-for-profit organization whose main mission has been to promote the interests of medium and small enterprises with representation and a number of other services. By 1995, the *Servicio Crediticio de AMPES* became Financiera Calpiá, a full-fledged regulated financial intermediary. In preparation for this step, Calpiá had already been voluntarily complying with all the regulations from the Superintendency of the Financial Sector, and it continues to show above-average indicators of solvency and profitability among the regulated financial intermediaries of El Salvador. After the elimination of the *financiera* charter by the new Banking Law, Calpiá was given some time to transform into a commercial bank.

The main donor to support this venture from the beginning was the German Technical Assistance Agency (GTZ). This assistance included, in particular, the technical support of the consulting firm IPC (*Internationale Projekt Consult*) from Frankfurt. This support ended in December 1999. During the whole period, however, IPC engaged in a close partnership with Calpiá (as one of its implicit quasi-owners), and it kept a resident technical advisor in San Salvador, who *de facto* became another member of the management team.

The emergence of Financiera Calpiá as a regulated financial intermediary would not have been possible without the participation of the Inter-American Development Bank (IDB) and the Central American Bank for Economic Integration (CABEI) as well as of several local NGOs as shareholders in the new organization. Although Calpiá was incorporated as a private financial intermediary, up to this date all of its shareholders have been not-for-profit domestic or international organizations. The implications of this particular (attenuated) structure of property rights are not discussed in this paper.

The performance of Financiera Calpiá has been characterized by both outstanding outreach and sustainability achievements, without parallel in El Salvador or in most Latin American countries.⁶ One of the simplest indicators of outreach is the number of outstanding loans. Since all loans are approved and disbursed on an individual basis, this is also a good indicator of the number of clients being reached by Calpiá. The data are reported in Table 2.

⁵ The information was gathered as part of the larger research agenda of the BASIS CRSP in El Salvador (Gonzalez-Vega, 1998a; Schreiner *et al.*, 1998). The project is being implemented by the Rural Finance Program at The Ohio State University and the Departamento de Estudios Económicos y Sociales at the Fundación Salvadoreña para el Desarrollo Económico y Social (FUSADES).

⁶ For example, it has been calculated that the total number of microfinance clients in Brazil is around 60,000. For Mexico, this figure only amounts to 40,000 people (Christen, 1999).

Table 2. Financiera Calpiá: Number of Outstanding Loans as of December, 1995-98

Year	Urban	Rural	Total
1995*	9,261	2,799	12,060
1996	14,707	3,344	18,051
1997	18,600	6,029	24,629
1998	22,565	6,156	28,721

* After only six months of operation.

Source: Pleitez-Chávez (2000)

Two observations may be highlighted in Table 2. First, the number of clients grew 138 percent during the 1995-1998 period. This growth continued during 1999, and by December of this year the total number of outstanding loans had reached 34,390 (Calpiá, 2000). Second, the relative importance of the rural clientele has remained at around 20 percent of the total number of clients. This has reflected the portfolio diversification and risk management strategies of the organization, although it may be expected that the rural portfolio will continue to grow somewhat in relative importance, given the large unsatisfied demand for credit in the rural areas of El Salvador and given Calpiá's comparative advantage in these areas

The depth of outreach may be proxied by loan sizes. As of December of 1998, the average urban loan was 6,019 Colones (US\$ 688) and the average rural loan was 6,876 Colones (US\$ 786). This had not changed by December of 1999, when the average size of outstanding loans was 6,747 Colones (US\$ 771). It is noteworthy that the average size of rural loans is slightly larger than the average size of urban loans. This reflects, mostly, the different composition of occupations in the two market segments.

Outreach, moreover, refers not only to the number of borrowers and size of loans (Navajas *et al.*, 2000). Among other dimensions, outreach also refers to the variety (range) of services. In particular, Financiera Calpiá has undertaken serious efforts at deposit mobilization. This has permitted the organization to offer a wider menu of services to its clientele, and it has reduced its dependence on external funding. As shown in Table 3, the number of outstanding deposits rapidly grew to 24,272 by the end of 1998, and it further grew to 29,669 by the end of 1999, for a total mobilization of 66.6 million Colones (US\$ 7.6 million) by December of 1999.

Table 3. Financiera Calpiá: Number and Amount of Deposit Accounts as of December, 1996-98

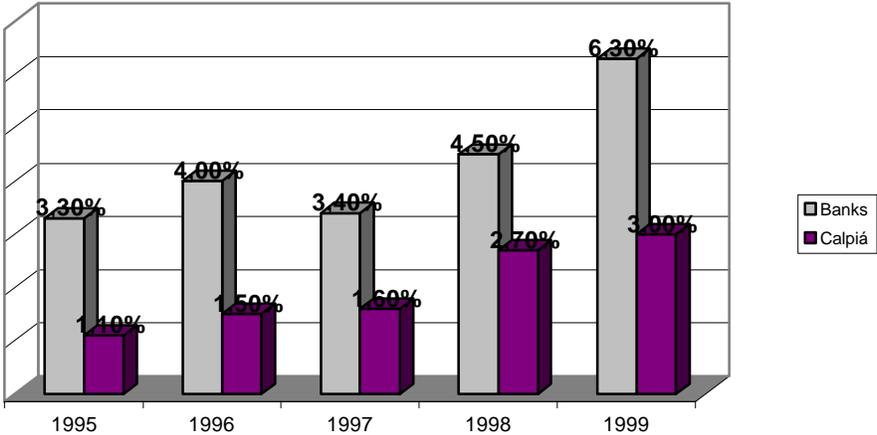
Year	Saving Accounts		Term Deposits		Total Deposits	
	Number	Amount (US\$)	Number	Amount (US\$)	Number	Amount (US\$)
1996*	312	33,406	37	307,394	349	340,800
1997	4,929	344,606	254	1,045,303	5,183	1,389,909
1998	18,254	752,228	725	2,021,726	24,272	2,773,954

* After only 4 months of operation.

Source: Pleitez-Chávez (2000)

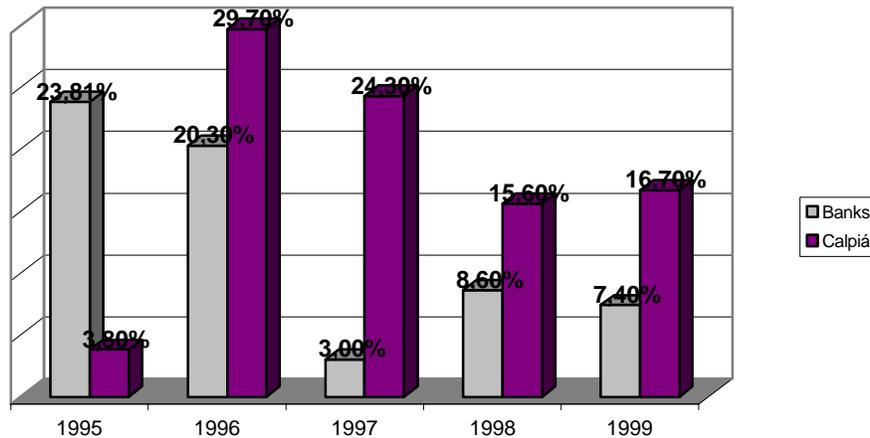
Calpiá's sustainability achievements are equally impressive. The organization is solvent, and it has generated increasing levels of profits ever since its creation. In 1999, profits were equivalent to over US\$ 1,000,000. The organization has been praised by the Superintendency of the Financial Sector for its financial management. Calpiá has outperformed the banking system in most indicators of financial performance (see Figure 1 and Figure 2). Calpiá's accomplishments have been better in terms of portfolio performance. Portfolio at risk rates have been lower (around a half) for Calpiá than for Salvadoran banks. Calpiá's performance has also been better in terms of profitability (returns on equity). In this respect, Calpiá outperformed the banks every year except during its first year of operations. Its performance has attracted domestic and international attention: Calpiá has been recognized as the best microfinance lender in El Salvador by the *Banco Multisectorial de Inversiones* in several years, and it received the award as the best MFO in Latin America offered by the IDB in 1999.

Figure 1: Portfolio at Risk (Banks and Calpia)



Source: Esperanza (1999)

Figure 2: Return on Equity (Banks and Calpiá)



Source: Esperanza (1999)

4.1 Calpiá and the Rural Poor

Large numbers of clients do not necessarily mean that Calpiá is reaching a large number of poor people. Still another question is what is the number of poor clients that could be potentially reached with the lending technology developed by Calpiá. To answer these and similar questions, we need to know how poor the clients of Calpiá are. This task is not easy, given enormous measurement problems and unresolved debates about the definition of poverty itself (Ravallion, 1994). These questions cannot be resolved here; instead, the task will be approached with the use of some very simple and straightforward poverty indicators. The results of this approach are presented next.

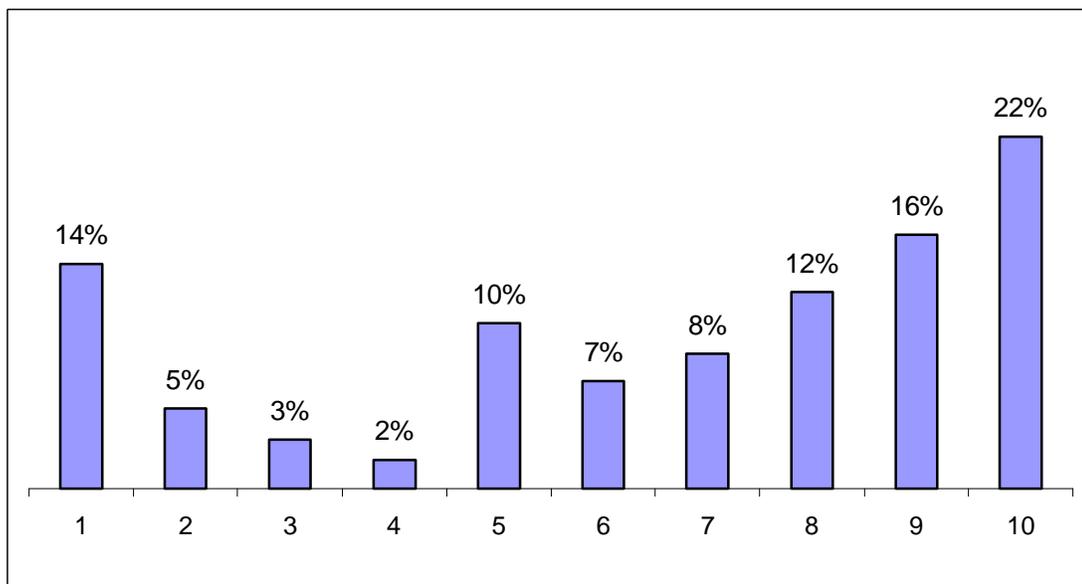
To illustrate the relative poverty of the rural clients of Financiera Calpiá, the following procedure was followed. First, data from a sample of rural households in El Salvador was used to thoroughly compute household incomes for 1997 (Beneke de Sanfeliú, 2000). Second, the same questions were asked to a sample of rural clients of Financiera Calpiá and household incomes for its rural clients were computed with the resulting data (Schreiner *et al.*, 1998). Third, the corresponding household income distributions were compared in a number of ways (Navajas, Gonzalez-Vega and Hopkins, 2000). A few of those results are reported here.

The simplest comparison of the two distributions is to contrast median incomes. The median 1997 income for the rural households at large (US\$ 1,717 per year) is below the median household income for the clients of Calpiá (US\$2,880). The typical rural client of Calpiá is not poorer (in terms of household income) than the typical rural household.

The median, however, is only a moment in a distribution for a population characterized by great heterogeneity. Looking at the whole distribution is always more illustrative than looking only at the median. For this comparison, we first determine the income intervals for the deciles of the household income distribution for the sample of rural households. This tells us what the

range of incomes is for the poorest families, the next poorest, and so on. We then want to know where the clients of Calpiá fit in this distribution. For this, we place each Calpiá household (according to its income) in the corresponding decile of the distribution for the whole rural population. This tells us where that particular Calpiá household falls with respect to the overall rural population. We can then describe how many of Calpiá's clients fall in each decile of the household distribution, as shown in Figure 3. For example, five percent of the clients of Calpiá are in the second decile of the overall distribution, ten percent are in the fifth decile, sixteen percent are in the ninth decile, and so on. In other words, the portfolio of Calpia under-represents the rural households of the second decile, it resembles the rural population in the fifth decile, and it has a disproportionately large number of clients from the ninth decile.

Figure 3: The Clients of Calpiá and the Deciles of the Rural Population



Source: OSU/FUSADES BASIS 1998 Rural Household Survey and authors' calculation

To report the proportion of the poor in the portfolio of Calpiá we need a poverty line. For rural El Salvador, in 1997 the extreme poverty line was established at a yearly income per member of the household of 2,276.60 Colones (US\$ 260.30) and at 4,555.20 Colones (that is, US\$ 520.60) for the "relative" poverty line (Lardé de Palomo, 1999). Using these poverty lines, we find that 59 percent of the members of households that were clients of Calpia were relatively poor and that 34 percent were extremely poor. In contrast, in the sample for the rural population, 75 percent of the members of the corresponding households were considered to be poor and 46 percent were considered to be in extreme poverty (Navajas, Gonzalez-Vega and Hopkins, 2000).

5. The Lending Technology: Key Ingredient for Success

An appropriate lending technology has been a key ingredient in Calpiá's steady growth and outreach and sustainability success. A *lending technology* "covers the entire range of activities carried out by a loan-granting institution which have to do with selecting borrowers, determining the types of loans to be granted, the loan amounts and terms to maturity, and the way in which loans will be secured, as well as the monitoring and recovery of loans" (Schmidt and Zeitinger, 1996). The lending technology is used to solve the information, incentive, and contract enforcement problems that may appear when a loan transaction takes place. A successful lender is able to minimize the costs associated with solving such problems (Navajas, 1999a). These costs include both operating risk-reducing costs as well as losses from arrears and default.

A complete description of a lending technology should also take into account the behavior of the borrowers (Schreiner *et al.*, 1998). The reactions and responses of the borrowers to the procedures, policies, and requirements of the MFO will ultimately determine a successful lending transaction. This is so because some costs are internalized by the borrowers (*e.g.*, transportation costs) and can greatly impact their borrowing and loan repayment decisions. Moreover, the borrowers interpret the signals from the organization and respond to the structure of incentives offered by the lender.

Next, the paper describes in some detail a number of elements that together embody the lending technology of Financiera Calpiá. No element is independent of the others, and they should all be seen as small parts of a big puzzle.

We start the analysis with the description of the principles originally developed by Calpiá for its lending operations in urban areas. These principles were developed in partnership with IPC and were later on adapted to the rural scenario. These principles show how Calpiá looks at its clients (perceived demand) and the types of services that it offers them (supply response).

Financiera Calpiá understands that in its target market segment:

- (a) The household-firm (farm) is an indivisible economic unit of revenues and expenses (*i.e.*, a joint portfolio of economic activities). Thus, repayment capacity and willingness to repay must be accordingly evaluated for the whole unit.
- (b) A larger number of alternative sources of repayment are always better than complete concentration of the household's portfolio in one activity. Diversification of its portfolio of activities facilitates risk control by the household and thereby improves repayment capacity. This *delegated diversification* reduces the need for the MFO to diversify its own portfolio in order to keep risk at the desired levels (Gonzalez-Vega, 1999a). The existence of alternative sources of funds for repayment also reduces problems of household cash flows in meeting amortization schemes. This allows the MFO to design contract terms that incorporate frequent payments as a monitoring tool.

- (c) A long-term relationship is more valuable for both borrower and lender than a one-time transaction. Both parties invest in the long-term relationship to take advantage of the accumulation of information and rely on sunk costs to reduce the costs of transacting (Gonzalez-Vega, 1997). Because rural borrowers have few alternative sources of credit, they value the permanency and reliability of the relationship.
- (d) Poor households always have some assets that can be used as non-traditional collateral. Calpiá understands that collateral is useful if it serves as an incentive for repayment. There is an incentive to repay because collateral decreases the expected gains from default for the borrower and because the seizing of collateral serves as a powerful signal to prospective borrowers about the seriousness of the organization. This is the case even though the assets pledged may have a very low retail value compared to loan size (*e.g.*, semiformal liens on household furniture or appliances).

In response to a well-understood demand for credit, Calpiá offers services with the following basic characteristics:

- (a) Loans are tailored to individual demand. Calpiá's willingness to tailor loan terms and conditions to individual circumstances allows the clients to take advantage of a wider set of productive opportunities and offers the organization the opportunity to increase the earning power of each loan.
- (b) The product offered is the expectation of a long-term relationship, in which a stream of financial services at improving terms and conditions is being promised.
- (c) Loan officers (*analistas*) are the most important link (and most of the time the only link) between Calpiá and its borrowers. In order to take advantage of the structure of incentives embodied in this personal contact, loan officers are in charge of most lending activities (screening, monitoring, and enforcing loan contracts). This allows Calpiá to enjoy economies of scope at the loan officer level.
- (d) Since the loan officer's behavior determines the quality and productivity of the services provided by Calpiá, there is a process of careful selection and training of loan officers. In addition, a system of monetary incentives based on the performance of each loan officer's portfolio is expected to induce diligence and appropriate risk management.
- (e) Promptness in the loan granting decision is much valued by the clients. Calpiá evaluates potential borrowers in a timely fashion. Moreover, both acceptance and rejection of any application take place very rapidly. Repeat borrowers experience no interruption in the continuity of their funding.
- (f) Calpiá engages in in-depth analysis and monitoring of the client's use of the funds. This practice is not followed, however, because Calpiá is interested in specific uses of the loan

funds (targeting). Rather, Calpiá is only concerned with repayment capacity, and it monitors borrower activities only to detect changes in the risk profile of the borrowers. As long as the risk profile remains unchanged, even if the originally proposed use of the funds has changed, the loan officers will not be concerned at all. Calpiá understands that the clients perceive changes in their productive opportunities better than anybody else and encourages them to adjust their decisions to these changes in the environment. This was instrumental, for example, in keeping arrears at very low levels even during El Niño.

- (g) Continuing monitoring that takes place at low cost during casual visits or simply greeting customers during the loan officer's daily routine plays a meaningful role in these market segments. This interaction reinforces the borrower-lender relationship and signals the seriousness of Calpiá's intentions.
- (h) An efficient management and information system (MIS) supports the loan officers' activities (*e.g.*, information on current arrears is made available to loan officers on a daily basis).
- (i) Non-traditional assets (with high incentive value, but low resale value) **and** traditional assets (such as mortgages on houses) are accepted as collateral; and
- (j) Contracts are enforced to ensure repayment **and** to signal to other clients the intent to collect no matter what (credibility).

6. The Rural Lending Technology of Calpiá: Careful Process of Adaptation

The process of adapting and transferring a lending technology to a different setting is not easy. Financiera Calpiá has gradually and carefully moved from the urban into the rural areas. This has been an arduous process of learning-by-doing and of taking baby-steps to ensure success (Buchenau, 1997; Navajas, 1999b). A careful description of this process is presented below.

Any description of a lending technology requires a significant amount of information on procedures, attitudes, and practices. The relevant information is not embedded in results (*e.g.*, low arrears or growing number of borrowers), manuals or end-of-the-year reports. Rather, the information is present in the day-to-day practice and behavior of loan officers, managers, and borrowers. It is always difficult to go beyond manuals and enter the world of actual behavior. Manuals consider only a limited range of options and possibilities. Lending is full of situations that cannot always be predicted in a manual. Therefore, this section uses not only information from manuals but also from extensive interviews and observation of Calpiá's lending practices. That is, the inputs used in this section come from extensive interviews with loan officers and managers (what is being done?), information about the financial services offered (what is being produced?), and manuals (what are the rules?).

The most important input to uncover the black box of the lending technology were the interviews with the loan officers. A guide was prepared for consistency during the interviews, which consisted of a series of questions and reminders for the interviewer. Since the objective was to uncover unknown processes and attitudes, by design the questionnaire was open. The interviewers were able to ask in greater detail about whatever seemed more interesting, controversial or new while staying within common boundaries.

As of August 1998, Financiera Calpiá had a network of ten branches dispersed in the rural and urban areas of El Salvador in addition to its administrative headquarters. The branches were staffed with 68 loan officers. From this grand total, 15 loan officers were considered as *rural* loan officers. With a population of 15 loan officers, interviews with all of them made more sense than taking a sample. To draw comparisons between rural loan officers and their urban peers, a sample of 8 urban loan officers (out of 53) was also drawn⁷. The analysis is mostly qualitative, and it describes a number of elements that together embody the lending technology of Financiera Calpiá.

6.1 Loan Officers: Human Cornerstone of Lending

6.1.1 The Entry Process

Calpiá is conscious of the importance of loan officers in the day-to-day activities of the organization. Its loan officers, who on average are 30 years old, must pass a rigorous and lengthy selection process. The process, from the moment Calpiá places an ad in the newspapers to the moment when the new officers actually develop a portfolio, can easily take up to four months.

The selection process starts with an ad in the local newspapers, looking for recent or soon-to-be graduates from a university. Acceptable degrees range from Economics and Business Administration to Agriculture. Other important requirements include: residence close to the branch location, driver's license, and availability to work in the field (away from the desk). Calpiá stresses that banking or lending experience is **not** required. Rather, Calpiá is mostly looking for professionals with established ties to the communities where the branches operate. Lack of lending experience is preferred because then the training can build up from zero and acquired biases can be avoided. The response to these ads is usually massive. For example, in early 1998, about 700 applications were received in one round. From this total, about 30 people were offered a position in the organization. The organization uses several filters to get the cream at the top.

A typical entrance walk for a new loan officer is like this. The applicant sends his/her résumé to Calpiá. A month later, a selected number of applicants are called for an interview and a written exam. Given their different educational backgrounds, the written exam is designed to test for creativity rather than subject matters. The successful applicants (50 percent passed the exam in early 1998) are scheduled for a field exam.

⁷Four interviewers participated in this effort: Sergio Navajas, Claudio Gonzalez-Vega and Rafael Pleitez from The Ohio State University, and Anabella de Palomo from FUSADES.

The field exam has two main objectives: to test for the abilities of the prospective loan officers when facing the borrowers (away from the office) and in front of peers and managers (in the office). First, the applicant is given an address of a prospective borrower. The initial challenge is to locate the address anywhere where Calpiá operates. Then, the applicant has to gather the information he thinks is necessary to evaluate a loan application. Calpiá is testing here for creativity and communication skills. The loan application is next presented to a loan committee formed by fellow applicants and managers of Calpiá. This stage involves role-playing. A not so uncommon exercise is to have a manager play the role of a stubborn and unwilling-to-pay borrower.

Depending on the quality of the applicants, positions are offered in the next month or so. When the offer is accepted, the new loan officer will spend the following two months in training. This process has two components. The first part is a two-week course, where the loan officers are taught financial analysis, institutional policies, and complementary ways to evaluate ability and willingness to repay of new and repeat borrowers. Second, the new loan officers are matched with experienced loan officers to learn in the field. To compensate the training expenses, the loan officers commit to a minimum of two years. The new loan officers are asked to carry market studies in new expansion areas. In this way, the new loan officers get a first taste of how the market will look like.

6.1.2 Profile of a Loan Officer

There are two distinct groups: rural and urban loan officers. All rural loan officers were interviewed. The information about urban officers comes from a sample.

Rural Loan Officers

The typical rural loan officer lives in the vicinity of the branch. He usually holds or is about to get an undergraduate degree in agricultural sciences from the National School of Agriculture (*Escuela Nacional de Agricultura, ENA*). This strong academic background allows him to understand what to expect in rural activities. As a university graduate, he has had some exposure to accounting, computer sciences, and financial analysis.

A university education does not allow the loan officers, however, to rapidly recognize an inefficient farm or to estimate the probable yield in a given region. The most important part of Calpiá's training, therefore, is the "hands-on" learning that occurs when an old loan officer is matched with a new one. At this stage, the new loan officer does not have a portfolio of his own but just follows and learns from the fellow co-worker. This can take from two to three months, and it has been regarded as the most important part of the training process.

Calpia is able to train loan officers rapidly because they have already had an extensive higher education (3-6 years). In other environments, where the scarcity of highly-educated

people may drive wages up, the MFO will have to spend more resources in training or, alternatively, in high wages to attract educated candidates.

Rural loan officers have a similar educational background but possess a diverse working experience. The first and largest group (about 30 percent) came from the BFA. They belong to the first generation of rural loan officers. The rest had had some experience in rural NGOs (*Fecoagro*, Plan International) or had worked in agriculture (*beneficios de café*, independent farms). The current trend is to hire people without prior lending experience.

An important reason why Calpiá initially hired former rural loan officers was, in part, to benefit from their knowledge of the region (clients) and about credit practices. After Calpiá adapted its own technology to the Salvadoran rural areas, this additional knowledge was no longer crucial. Even more, it has been shown that teaching new techniques and attitudes to newcomers is more effective than trying to change old habits.

Rural loan officers spend only one extra day of specific training compared to urban loan officers. Indeed, Calpiá adheres to the same lending principles in the two environments. This does not mean that rural lending is the same as urban lending. It certainly requires different skills, but these skills cannot be taught in a few extra theoretical classes. This is why Calpiá is hiring more people with degrees in agriculture and some experience in the countryside rather than loan officers from the BFA.

Urban Loan Officers

Loan officers in urban areas are also around 30-years old. They have, however, a more diverse educational background than rural loan officers. They usually hold an undergraduate degree in business administration, economics or accounting, but it is also possible to find loan officers with high school diplomas only. For urban loan officers, educational background does not appear to be as crucial as it is for the rural areas. Urban loan officers also possess a wide variety of working experience. It is possible to find from former teachers to administrative assistants and microentrepreneurs. This diverse background of urban loan officers has several implications.

First, it seems that the urban lending technology can be learned and used effectively by rather different people. This has cost implications. If there were a boom of rural lending in El Salvador, at some point the scarcity of agricultural engineers may drive costs up. In contrast, if the same happened in the urban areas, there would be a larger pool of potential loan officers to choose from. The cost advantages depend on the relative wages of different university graduates.

6.2 First Impression Matters: The Process of Screening and Signaling

The first set of actions and procedures in the lending process are screening and signaling. During *screening*, the organization evaluates repayment capacity: the ability and willingness to repay of potential borrowers. The organization wants to distinguish borrowers according to their riskiness and to offer them contracts according to their riskiness.

This first contact is extremely important, as both parties (lender and borrower) send signals to each other about their intentions. How these signals are designed and interpreted will greatly influence the future performance of both lender and borrower. This section describes the *signaling* process for Calpiá. This step in the lending process has been very important in El Salvador because of the breakdown of repayment culture and the mixed signals sent by MFOs that are not concerned about their sustainability.

A feature of some borrowers of Calpiá is that they have had experience with other lenders. The rural loan officers interviewed reported that some of their clients had had loans from another organization (a bank, cooperative or NGO). In the rural areas, the estimated proportion of clients with former borrowing experience ranged from 10 to 60 percent of the clients of a given loan officer. The main lender, by far, had been the BFA, followed by *cajas de crédito* and NGOs. Attitudes about repayment and borrowing habits had been shaped, for better or for worse, by these earlier contacts. Calpiá has been forced to spend considerable resources in differentiating its product and explicitly signal its expectations about contract enforcement.

The first contact with the client can occur in three different ways:

- (a) The potential client walks into the offices of Calpiá looking for information. The most common referral comes from a current client. The potential client has heard of Calpiá from a friend, a relative or a neighbor who already is a client of Calpiá.
- (b) An established borrower recommends a person. This potential borrower is then visited by a loan officer, who offers the services of Calpiá to the prospective client.
- (c) When the rural loan officers visit a region, they have a meeting point. This meeting point serves as a link to old borrowers and also gives potential clients an opportunity to talk to the loan officers. Similarly, an urban loan officer may be approached by a prospective borrower when he is walking in his designated area (a market, for example).

When the initial contact takes place away from the office, potential applicants may be scheduled for a talk at the branch (*charla*). When demand is high, this talk is held for groups of 20-30 persons. When demand is low, the new client is able to talk with a loan officer alone. In both cases, the message is similar. In new branches and when Calpiá is still unknown in the region, the *charla* can take place at a cooperative or other local organization. Although

important, the talk does not appear to play the same central role that it does play in some of the Bolivian MFOs (Gonzalez-Vega *et al.*, 1997).

The *charla* serves various purposes. First, it serves as a showcase of services. The conversation emphasizes the wide array of services offered and the lack of red tape (*agilidad*) in the process. The benefits of a long-term relationship (*permanencia*) are emphasized as well as the capacity to tailor contract terms and conditions to individual demand (*flexibilidad*). Loan officers want to clearly differentiate Calpiá from organizations characterized by red tape (such as the BFA) or by their transitory existence (NGOs).

Second, the presentation discusses the responsibilities of a borrower and emphasizes how serious an organization Calpiá is. In order to get the promised benefits, borrowers must comply with a number of conditions. They must be able to show that they have a productive opportunity, that alternative means of repayment exist (collateral and other sources of income), that they do not have a delinquent loan anywhere else, and that they can be trusted. Trust is built via punctual payments. The talk also underscores that Calpiá is a profit-making entity and not a give-away charity. In the case of missing payments, Calpiá is prepared to remove any collateral pledged by the borrower. As further proof of its seriousness, Calpiá keeps collateral seized from delinquent clients (TV sets, sewing machines) in sight during the meeting.

Calpiá expects that the *charla* will serve as a self-selection mechanism. *Self-selection* is the process by which not-creditworthy borrowers select themselves out and do not apply for a loan. When a borrower is not expecting to repay and does not foresee any punishment for such behavior, there would be incentives to apply for a loan. If, in contrast, the punishment is perceived as certain, the expected benefits of defaulting will be less and applications will be discouraged.

An efficient self-selection mechanism would separate borrowers who expect to repay from those who expect to default. Borrowers are informed that in case of default all agreed penalties are enforced. Ideally, the pool of applicants would be reduced to only those individuals who expect to repay because they are willing and they expect to have the means to do so. If the process is efficient, the organization will invest in a detailed individual evaluation for only a reduced number of applicants. An inefficient mechanism would eliminate few or none of the risky applicants and the organization would have to invest more resources in the evaluation of the applications. Alternatively, an inefficient mechanism would discourage potentially good clients from applying for loans.

It appears that at Calpiá the *charla* is a powerful tool; the loan officers estimated that around 30 percent of those attending leave after the *charla* is over. Even though the *charla* has a similar message at all the branches, its effectiveness depends on the charisma of each speaker.

6.2.1 Evaluate, Evaluate, Evaluate

After the *charla*, potential clients still interested in a loan are invited to fill out an application and to talk to a loan officer. This one-on-one interview takes place immediately after the *charla* except when demand is high. The loan officer must now evaluate the creditworthiness of this newcomer. Depending on the results, specific terms and conditions for the loan are determined or the application is rejected. Rejection is always communicated in a subtle way. The loan officer may set unattainable prerequisites, for example, so the rejection will not be taken personally.

The entire evaluation is an arduous process. It involves gathering information from three major sources: the client, referrals (other clients and financial organizations), and visits to the client's business (farm) and home. Since each step is costly, loan officers start with the in-office tasks first, and field visits are scheduled only after the client qualifies. Each filter is increasingly more costly to implement. It makes sense, then, to start with the least costly tasks. Because his performance will influence his salary bonus, the loan officer has incentives to economize. But, what specific information is gathered at each step? This is discussed in the next three sections.

Step 1: Information from the Client

The first interview with the client is extremely important. It is the first opportunity the loan officer has to evaluate the character of the client. It is a short but very effective interview. The main points discussed are:

- (a) The loan officer wants to know how this person knows about Calpiá. Did she learn about it from a current borrower?
- (b) The purpose of the loan is then discussed. What are the funds going to be used for? How is the loan going to be repaid? Here, the agricultural background of the rural loan officers plays an important role. A loan officer cannot be fooled about yields, livestock productivity or crop prices. Loan officers know yield and price averages in the region, and they have a pretty good idea about what is needed to obtain a given yield.
- (c) The nature of the commitment is emphasized. It is explicitly stated that in case of a problem with the major source of repayment, alternative sources must exist. Actually, loan officers are not interested in the specific use of the funds *per se* as long as the loan is repaid. Calpiá also recognizes that, in the evaluation of repayment capacity, the whole household-business unit must be analyzed.
- (d) The guarantee is the next issued to be discussed. The loan officer explains the types of assets that are accepted and the advantages and disadvantages associated with each kind.
- (e) Once a general agreement is reached, the loan officer gives the client a form to fill on the spot or to bring later. The form summarizes the information already discussed during the

interview and requests documents to back it up. Two names, from non-relatives who can serve as references, are requested.

Rural loan officers are authorized to negotiate loans for non-farm purposes if the client lives in their region of influence. In fact, rural loan officers are able to diversify their portfolios by granting loans for non-farm purposes. Consumer loans are not explicitly offered but loan officers recognize that, given the fungibility of funds and the lack of supervision, loan funds are used for consumption. As long as loans are repaid, no one is concerned with this apparent loan diversion.

With information about the household, business, and credit history in hand, the loan officer programs a visit to the client in the following days. Before visiting the client, the loan officer will try to get information from other sources.

Step 2: Information from other Sources

The most important pieces of additional information are the references. For all borrowers, rural loan officers check with the BFA and the *cajas de crédito*. The BFA and Calpiá, in particular, continuously exchange information. Given mutual benefits, the exchange occurs fast. Sometimes, a fax or a phone call is enough to learn about the status of a borrower. If the loan is large, other sources such as *Pro-Crédito* (a private rating agency) and the Superintendency of Banks may be consulted. If a borrower is found to have a delinquent loan outstanding, the process is terminated immediately. If the client has a current loan, depending on her remaining repayment capacity, a loan from Calpiá is still possible. Urban loan officers use the same credit rating agencies but also may consult a wholesaler. Wholesaler credit seems to be more important for urban than for rural clients. This may happen because the proportion of merchants is higher in the urban than in the rural areas.

The most important referral comes from established borrowers in the region, who clearly possess information advantages. This, in the words of the loan officers, is the most important reference. If the rejection of the application is foreseen, loan officers have different strategies to bring the news to the applicant. The rejection is always communicated rapidly and in an impersonal way. In the majority of cases, the loan officer will propose the client terms and conditions so tight that the client will automatically remove the application. The loan officer may also blame a credit committee for these tighter conditions. The purpose is to avoid any personal confrontation (this behavior is understandable in a country where violence still persists) and to leave the doors opened for future business. Speedy rejection is as important as speedy disbursement because both reduce the transaction costs of the borrowers.

In general, the initial interview, application form, and process of information collection before the visit to a rural client are more complex and detailed than what an urban loan officer would require. This happens because the most expensive part in the evaluation process for a rural loan officer is the actual visit, while in the urban setting loan officers will usually be able to walk

to their client's business. A visit in the rural areas is expensive, so it only occurs when the loan officer has enough confidence that the applicant is a legitimate potential client.

Step 3: Information from Visits to the Client

An integral part of Calpiá's lending technology is an on-site visit to the borrower. The visit has three major components: a visit to the home, a visit to the site where the business takes place, and a visit to the community in search of references.

In the visit to the home, the loan officer is looking for signals that will help to evaluate the applicant better. These signals include the state of intra-households relationships, quality of life of the household, condition of potential guarantees, accessibility to the guarantees, and documentation. At this stage, any documents that may back the application are requested. These documents include paid bills (utilities), receipts from payments on current obligations (BFA, NGOs or appliance purchases), title to the house and land, receipts of remittances, and documents about the business.

Then the loan officer visits the plot of land or the barn where the funds are going to be invested. The loan officer observes the techniques and practices used by the client. He observes and personally evaluates inventories, stocks, machinery, sales, if applicable, and the like. The lending technology requires that both urban and rural loan officers visit both the home and the business of the borrower. The emphasis placed on each visit is different, though. Rural loan officers pay particular attention to conditions of the household, while urban loan officers are more interested in visiting the business.

Even though this detailed information gathering may appear demanding, it is not enough. Personal references are still necessary. The loan officer talks to neighbors, established clients in the region and/or merchants in the region. The conversations with community members allow the loan officers to corroborate their information. Simple questions are about character: Is this person a respected member of the community? Is this person a hard-working farmer? Merchants are asked if they provide credit to the borrower. In some cases, rural loan officers find out that the plot of land does not even belong to the client. However, lack of ownership *per se* does not preclude a farmer from getting a loan, but a finding like this would erode the trust between borrower and lender. The loss of trust leads to the termination of the relationship.

6.2.2 The Evaluation Form: Summary of Findings and Recommendation

The evaluation report summarizes all the findings and recommendations made by the rural loan officer.

Household and Business Data

The information to be collected includes observations about the composition of the family (number of members, employment status, and age), status of the property (owned, rented, with title), and an estimate of the value of the house and other fixed assets. A brief assessment of the farm is also required: size of plot, location, type of irrigation, type of crops, status of property and estimates of its worth. All of this information is used in the evaluation of the application.

Historic and Projected Financial Statements

A detailed cash flow is prepared. The cash flow is important because it reflects the perceived repayment capacity of the client with and without the loan. The estimation has three interesting features:

- (a) It includes revenues and expenses for the whole economic unit, from all sources. On the revenue side, items such as remittances, proceeds from sales, and wages are included; on the expenses side, everyday household expenses such as food and clothing are included. The loan officer knows that livelihood expenses are senior claims.
- (b) Production parameters (crop yields or livestock productivity) are calculated as weighted averages of three indicators: the maximum yield ever, the most recent yield, and the worst yield ever. In estimating the value of output, minimum expected market prices are used.
- (c) The relative contribution to revenue flows of each activity of the farm-household unit is relevant. When the main source of income is not agriculture, the loan officer is required to present a detailed analysis of the alternative activity. Diversification is so important to reduce risk that the loan officers tend to reject specialized applicants with single activities.

The loan officer must also prepare a balance sheet, even if the client already has one, which is rare. The numbers are merely estimates by the loan officer based on the visit to the client. Particular attention is paid to inventories (machinery, livestock) and debt. At this point, the loan officer has already verified outstanding obligations with the typical rural lenders and, for larger loans, from credit rating agencies.

References

The applicant is required to provide names of people who may be able to recommend her, although rural loan officers understand that these are friends or business partners. This information is more valuable, however, when the names correspond to current borrowers with a good repayment record. In any other case, loan officers also look for their own references. Some of them trust some contact person in the town (an established borrower), merchants or neighbors.

Guarantees

A borrower's repayment behavior is influenced by several factors. One of these factors is the potential loss of an asset pledged as collateral. This loss is an inevitable consequence of default. At Calpiá, the typical loan contract does not explicitly consider any exception to this rule. It is clearly established that the contract will be enforced, independently of the *state of nature* (loss of a crop, drought, a sudden drop in prices).

Where the legal system is inefficient and cumbersome, the lender must find alternative means to enforce the contract. At Calpiá, guarantees play three important roles. First, pledging collateral decreases the expected gains from default for the borrower. Second, collateral requirements serve as a signal to prospective borrowers of the seriousness of the organization. Finally, collateral decreases the losses for Calpiá when default occurs. The three objectives are not necessarily always secured. A household appliance, a refrigerator for example, may have a low retail value (even compared to the loan) but it may have a very high consumption value for the client, thus strengthening the incentives to repay. Also, there are high-retail-value items that, due to legal constraints, are of little value for Calpiá.

In practice, the number of guarantors and the value of the guarantees requested exceed the minimum required by the manual of the organization. Loan officers along with branch managers have the power to increase these requirements, as they feel convenient. This responds to the high weights of portfolio performance indicators in computing the bonus salary. The types of guarantees that are usually accepted by Calpiá's rural loan officers are described next.

In the visit to the client, the loan officer always tries to talk to the spouse. Her inclusion as a guarantor has become a rule in Calpiá. It shows the commitment and agreement of the whole household towards the new obligation.

A number of items are accepted as collateral. Household appliances and furniture constitute the most frequently accepted assets. Items such as TVs, VCRs, refrigerators, stoves, and dining sets are common collateral. Loan officers try to include as many appliances and furniture as possible for each household. The advantages of this choice are several:

- (a) in case of default, the small size of these assets makes it easier to move the collateral to Calpiá's branches;

- (b) it is easier to sell small items than large ones;
- (c) some of these items have a high consumption value; thus, loss of the item may influence behavior, and
- (d) legal constraints to remove these items from the household are fewer. In the case of appliances, the borrower signs a document (*dación en pago*) that allows the lender to repossess the item if the borrower agrees.

In order of importance, machinery and livestock follow household appliances as the preferred collateral. Machinery items are valuable, but to serve as collateral, they must be legally registered. Registration of the lien adds costs (in time and money) to the transaction. Machinery items may have a high value at sale (*remate*) but as specialized assets they are more difficult to sell. Livestock are accepted through a document (*carta de compra*) that establishes that if the cattle are sold, Calpiá has a right to the proceedings. Due to their mobility and riskiness, livestock are accepted as complementary collateral only.

The fourth and least used form of collateral is a mortgage on the house. This is used only when the loan amount is large enough to justify collateralization costs. The legal process of setting up a mortgage is long and expensive. Formalization can take up to a month. A month is a long time in agricultural activities, where opportunities for cultivating or harvesting can be easily lost. As a partial substitute, rural loan officers accept land titles in deposit. They understand that, in case of default, they cannot foreclose on the house or the plot of land. However, the mere threat of legal problems creates enough incentives for some clients.

This approach is not always well understood by new clients. Sometimes they walk into the branch thinking that, as it is common in traditional banks, to offer a mortgage will automatically imply approval of the loan. Later on they find that having a stock of small but highly valued and movable items is better for collateral.

A combination of movable collateral (household appliances and/or livestock) and the signature of the spouse are enough guarantees when the family owns the house and/or the plot of land. If they do not own property, additional guarantors are needed. The best additional guarantor is a current client of Calpiá in good standing. If this is not possible, a guarantor who owns a house is preferable. If the guarantor is considered as the main backup for the loan, the loan officer visits him. Sometimes, a member of the household is a wage earner. When this is the case, an irrevocable payment order is used (*orden irrevocable de pago*). This document establishes that, in case of default, the employer will retain a portion of the salary to pay the loan.

The valuation of the guarantee is also important. Due to the small size of the transactions and the great variety of goods that are accepted as collateral, it would be unthinkable to hire an independent valuator. Therefore, the loan officer is in charge of valuing the TV or the cow. Although there are guidelines about minimum accepted ratios of guarantee value to loan size, the valuation depends on the assumptions and experience of each loan officer. Some loan officers are more conservative than others.

The established ratio (1.5 to 1) is designed to cover all liquidation costs. Loan officers estimate that they rarely recover enough to pay for the principal, interest and other costs associated with default. Frequently, moreover, the delinquent borrowers pay their loans just a few days after Calpiá has seized the collateral. This shows that the borrowers did not expect this extreme behavior and that they pay their dues when they realize Calpiá's intent to collect. Even when the borrowers recover their guarantees, the demonstration effect on other borrowers is powerful and goes beyond any verbal threat.

Calpiá does not require farmers to be the owners of their plots of land. Its technology allows the borrower to secure loans through alternative ways. This innovation is important in a country like El Salvador, where an important proportion of the farmers rent land (Buchenau, 1997).

6.2.3 Approval and Disbursement

The loan officer does not have authority to approve a loan application. A credit committee is in charge of approving, modifying or rejecting loan applications, using the information provided by the loan officers. The credit committee is the second most important filter in the screening process. Depending on loan size, the credit committee includes, on the one hand, the loan officer and, on the other, a branch credit coordinator, branch manager, or Calpiá's Credit Manager. For the largest loans, two members of the board plus two managers of Calpiá form the committee.

When the loan is rather small (up to US\$ 5,000), approval is fast and simple. Early morning, the rural loan officer delivers the application and evaluation forms along with any relevant documentation to the branch manager. The same morning and after the loan officer has presented the case in person, the manager makes a recommendation. When the loan has to be approved by a committee where the members are not at the branch, the process takes a few days. The majority of loans fall under the branch manager's control.

The next question is how good a filter is the committee? According to the loan officers, an overwhelming majority (70 to 90 percent) of the cases are approved without modifications. The rest are approved with minor modifications, and a very slim proportion (no more than 5 percent) of the cases is rejected by the credit committee despite the recommendation of the loan officer. The percentage of approved loans without modifications increases for established borrowers (*cliente recurrente*) and when the rural loan officer is more experienced.

When modifications occur, not all terms and conditions of the transaction are changed. The size of the loan is the most common revision, followed by the term to maturity. It is also usual to maintain the size of the monthly obligation but to modify the size and the term to maturity of the loan so that total risk can be reduced. Despite its role, the credit committee is thus not, by far, the main screen. This responsibility predominantly rests with the loan officers. This is why the loan officer's incentives, constraints, and attitudes are so important.

The decision of the credit committee is transmitted to the client through the loan officer. Even with modifications, most of the clients accept the offer. The whole process, from the application to actual disbursement, takes from three to five days. The waiting period depends on the loan officer being able to visit the region and putting together all the documentation. A rural loan officer will not ordinarily make a long trip to visit only one client; the visit will be put on hold until additional tasks (monitoring or recruiting new clients) can be added to the trip. If the loan officer is able to visit the client on the spot, the whole process will take no more than three days.

6.3 Monitoring: Supervising Repayment Capacity, not Production

The goal of the in-depth evaluation of the main sources of income of the client is to estimate repayment capacity. If the main activity of the applicant is the production of corn, the loan officer will analyze, project, and evaluate corn production. The terms and conditions of the loan will be adjusted to the cycle of corn production. The ultimate objective of Calpiá, however, is not to ensure the production of corn but to ensure repayment. As a further safety feature, a loan officer will always request an alternative source of income that will make repayment possible in case of failure of the main activity.

In the rural areas, consumption loans are not explicitly offered, not because Calpiá cares about the specific use of the funds, but because it has not yet developed a lending technology for this sort of loans. The loan officers recognize, however, that an important portion of the funds may be diverted to consumption or activities that differ from those of the initial project. This will not trouble any loan officer, unless it increases the risk of the loan.

The precise nature of the *monitoring* activities depends on the loan product. The three main loan products offered in the rural areas are:

- (a) seasonal credit, namely very short-term loans used to finance working capital during peak periods;
- (b) microenterprise credit, namely short-to-medium-term loans to finance working capital or investment in microenterprises, and
- (c) agricultural credit, namely short- and medium-term loans to finance working and investment capital in crop and livestock activities.

The portfolio of the rural loan officers is composed, in order of importance, of credit for crops, credit for livestock, and microenterprise credit.

After disbursement, a loan officer may visit the borrower. This visit does not necessarily take place for all new borrowers and for all loans. The heavy workload of each rural loan officer does not allow it. Even more, a follow-up visit is not an explicit part of the loan contract. Loan officers have found that their mere presence in the region is a good monitoring tool. A casual, non-programmed visit works well.

The visit is not a long and detailed analysis of the use of the funds; it is only a short, friendly encounter. The rural loan officer merely talks about family, events in the region, and the welfare of the household. Sometimes, a simple greeting when passing by works well (*random monitoring*). What is important is that the clients feel the presence of the loan officer in the region. Loan officers report that some increases in their individual portfolio's arrears are exclusively due to their temporary absence (vacation, sick days).

6.3.1 Preventive Monitoring

Some circumstances precipitate a visit before a loan is overdue. These circumstances include:

- (a) A negative shock. A drought, for example, is not under the control of the client, but it can significantly change the borrower's ability to repay. The loan officer will try to ensure that the client is engaging in risk-coping activities to deal with the shock (looking for extra income by working at a factory, for example). The possibility of a shock always exists, and its consequences are reduced *ex ante* with the requirement that the household have alternative sources of income. This is why a well-diversified borrower is always a better client than a specialized borrower.
- (b) Casual information from neighbors. The loan officer sometimes learns that a borrower has abandoned the region or the country, is sick, has some family problems, or has been a victim of violence. Even in the cases of death, loan officers have been successful in recovering the loan from surviving relatives.
- (c) Change in the project. The visit helps to verify if the alternative choice still fits the payment schedule. The loan officer knows that the client perceives better than outsiders the whole range of alternative opportunities that may appear after disbursement. Therefore, loan officers do not worry about changes of crops; they just want to ensure that repayment capacity is not jeopardized.
- (d) A large loan with a lump-sum payment. In order to provide the farmers with relief during liquidity crunches, Calpiá uses seasonal credit. The main characteristic of these loans is that the principal and interest are paid in a single balloon payment. If, in addition, the loan is relatively large, the loan officer visits the client to see what is happening. A lump-sum payment does not provide the continuous rich flow of information that frequency of payments provides.
- (e) The end of the month. A key component of the evaluation of the performance of the loan officer is the level of arrears at the end of the month. Although loan officers are always worried about arrears, when the end of the month approaches, they pay particular attention. This is understandable behavior, since wages are calculated, in part, by arrears at the end of the month.

6.3.2 Corrective Monitoring

If arrears occur, the first action taken by the loan officer is a visit. The information system of Calpiá allows the loan officer to know the very next day if a borrower is late in a payment. Loan officers do not panic the first day. If because of other activities they are visiting the region, they talk to the client, but the first day of arrears is not a cause for worry. Usually, if the arrears continue after three to five days, the loan officer visits the client.

There may be understandable reasons why a client has not paid yet. The client may have simply forgotten the payment date. This is common, so loan officers, at least at this point, just make a friendly suggestion. This time the loan officer will not talk about seizing collateral or other radical measures. He will, nonetheless, warn about the damage to the client's rating (*la nota*).

Calpiá's rating system has two components. The first one is an automatic grade based on promptness of payments. The second one is a loan officer's grade based on his evaluation of the borrower. The automatic system uses the average number of cumulative days a payment is late during the sequence of loans of the borrower. Clients who, on average, pay before three days after the due date, get a grade of *one*. The worst grade is *five*, for clients with late payments that average 10 or more days. The grading is adjusted for special circumstances.

The loan officer uses the same scale, from one to five, to grade clients. The grade reflects the loan officer's personal evaluation and not the number of days the client has been in arrears. In most cases, the loan officer's grade is the same as the automatic grade. Calpiá disqualifies all clients with grade *five*, and it places restrictions on clients with grades *three* and *four*. When there is a difference between the loan officer's grade and the automatic grade, the loan officer must explain the causes for the differences and the branch manager decides on the final grade.

6.4 Procedure Adjustments for Repeat Borrowers

A borrower who requests a second, third, or fourth loan from Calpiá has an additional advantage: reputation. This is an implicit asset for a client who has acquired a good reputation with the organization. The loan officer now possesses additional information revealed by the client's actual performance. Any additional loan is still risky, but experience with the client allows consideration of a wider set of risk types among the borrowers. Accordingly, the terms and conditions of the loans can be adjusted to individual circumstances and to repayment performance.

For a repeat borrower, a loan officer is required to make a new evaluation. The forms are simpler, but still require some work. To update financial statements and guarantees constitutes the core of the analysis. A visit for each renewal is highly recommended. In practice, though, the actions taken by the loan officer for a repeat borrower depend on a number of circumstances:

- (a) The first element is the grade (*nota*).
- (b) The second element is the nature of the changes in the loan contract. If there is a significant change in the terms and conditions of the loan, then a visit by the loan officer is explicitly required on instructions by the branch manager. The most common changes are increases in loan size and/or changes in the guarantee. Changes in term to maturity are rare as agricultural cycles are given.
- (c) The third element is any previous visit. All clients, most likely, have already been visited as part of preventive or corrective monitoring activities of the loan officer. These visits have already contributed to the stock of information needed for granting a subsequent loan.
- (d) The fourth element is a change in the activity to be funded. Regardless of the grade, if the loan officer learns that the client is going to engage in a different activity, then a new evaluation is needed.
- (e) A fifth element relates to references. Information about the use of the funds or wasteful activities by the client may come from other clients in the region. A client may tell the loan officer that another client is having problems with the crops or is about to leave the country. Under these conditions, even for a client with a perfect record, a visit will be programmed.

The final decision about whom to visit belongs to the loan officer. For a well known client, the visit may be only a friendly greeting and the information presented to the credit committee just a repetition of the previous report. In other cases, a visit may take longer, and the loan officer would be genuinely interested in observing production performance or the guarantees.

6.4.1 A Note on Deviation in the Use of Funds

The process of corrective monitoring or a visit before granting a second loan offers a great opportunity to learn about how the funds have been used. Was the proposed project a good project or not? How were the funds allocated?

Loan officers are not concerned about specific uses of the funds. Rather, they are concerned about a change in the risk profile of the borrower. The project is only a means to an end, not an end in itself. The project is relevant only as it changes the probability of repayment. Sometimes, loan officers are worried because the client has invested in crop x instead of crop y not because Calpiá is interested in promoting the production of x , but because the crop cycles may be different. If the cycles are different and the current schedule of payments does not fit the new cycle, arrears may increase. By the same token, if the alternative activity improves the probability of repayment (*e.g.*, the establishment of a store with good prospects), then the loan

officers will not be concerned at all. Calpiá's loan officers estimate that deviation of funds occurs in few cases (5 to 20 percent of all borrowers). They claim that deviation shows that the clients are diversifying their activities and that this is positive. Concern only arises when repayment is negatively affected by the changes.

6.5 Contract Enforcement: When and How

The first response to a late payment is a visit (corrective monitoring). The visit takes place after about five days of the due date. If the client still does not pay, the loan officer will continue to visit in an attempt to put some pressure on the borrower. Some loan officers will visit a client twice per week and others twice per month (which is the minimum recommended by Calpiá).

In the first attempts to collect, the loan officer just talks about the consequences of being late, ranging from the loss of a good credit history to the probable seizing of collateral. At the same time, the officer evaluates the causes of the arrears. He wants to know if the lack of payment is a result of a temporary cash flow bump or of lack of willingness to pay.

When the loan officer estimates that the problem is just temporary, a late payment agreement (*moratoria*) can be reached. The late payment agreement gives the client some extra days to pay the delayed quota and avoid late fees. From the next quota onwards, however, the original payment scheduled prevails. During training loan officers are instructed that this should not happen very often. This modified payment plan (*moratoria*) is only used with very good and well-known clients. It is, then, the exception and not the rule at Calpiá.

In all other cases, if the late payments persist for 30 days, collateral is seized. The loan officer himself, accompanied by the branch manager, the credit coordinator or another loan officer, seizes collateral. The seizing of collateral is accompanied by a document, voluntarily issued by the borrower, which states that the borrower offers the asset in payment of the obligation. Loan officers report that they have had problems in seizing collateral in very few cases. The collateral seized is then stored at the branch.

At this stage, payment is still possible. At least half of the clients in arrears pay their dues, in order to recover the collateral seized, within the next 15-20 days. After that, the loan officers believe that the loan will not be repaid. The loan officers are in charge of selling the seized assets. In most cases, another client buys the goods. Loan officers claim that they do not have time or the expertise to be selling TVs and sewing machines, but that they have to do it, since overdue loans affect their income (monetary incentives).

When collateral is finally sold, the proceeds do not usually cover the amount due to Calpiá. In some cases this happens because late fees and interest have accumulated or because the goods have depreciated much. If the residual debt is small, it will be written-off. If not, it will stay in the loan officer's portfolio. It is also interesting to note Calpiá's practice of calculating accrued interest. In order not to grossly overestimate accrued income, after 90 days

no more accrued interest is calculated. Calpiá builds provisions (reserves) to account for accrued interest not received.

6.6 Coordination of Lending Activities

There are at least two ways lending activities can be organized. The organization may assign each lending activity to different employees: a group of people is in charge of screening clients, another group is composed of credit analysts, and another group are loan collectors. This scheme exploits the advantages of specialization, but it forgoes other benefits that come from the concentration of information and activities in a single person (economies of scope). The second way to organize lending activities rests, precisely, on these economies of scope at the loan officer level. This is the case for Calpiá, where most lending activities are concentrated in the loan officer.

6.6.1 A Week in the Life of a Loan Officer

Loan officers at Calpiá have a work schedule with extended hours. A usual day for a loan officer starts early in the morning to finish after nine hours. During peak season times (planting and harvesting), for the rural loan officers, and during holidays such as Christmas, for urban loan officers, some of them have reported to work more than 14 hours per day. They work most of the time at the branch or in the field, but in the evening they take two-to-three hours at home to catch up. On Saturdays, they work in the office in the mornings and most of them add a couple of hours at home Saturday evenings and, if needed, a couple of more hours on Sundays.

The day of a loan officer invariably starts with identification of the defaulters. Loan officers spend from 20 minutes to an hour reviewing the daily report of defaulters, planning strategies to collect, and talking about some initial actions for collection. The daily report lists all clients with late payments. Most urban loan officers will be able to call the defaulters by phone right away. For the minority of clients who do not have a phone, the evaluation will serve to plan ahead for visits. They may review installments that are due to determine if any preventive monitoring is necessary (given the size of the loan and the history of the client). The decision, especially of undertaking preventive monitoring, is left to the loan officer's discretion.

Next, the loan officer will talk to the credit committee of the branch manager or credit coordinator. Rural loan officers bring into consideration from three to six loan proposals, depending on the season. For urban loan officers this load is from four to seven loan proposals. Rural loan officers must prepare a proposal for all clients (new or repeat). Urban loan officers, in contrast, concentrate more on new clients, since some of their old clients may be enjoying a line of credit (*crédito automático*) and no evaluation report is needed.

Overall, the meeting lasts no more than half an hour. At this moment, general meetings are also held. These are meetings in which the manager speaks about the actual and expected branch performance and coordinates actions to control for arrears, portfolio expansion, and other issues of general concern.

Later in the morning, loan officers are divided into two groups. The majority will leave the office until late in the afternoon. The second group, no more than a couple of loan officers, will stay in the office to offer the informative talks (*charlas*). Depending on the attendance, one or two talks will be programmed. Each talk will take no more than 30 minutes. Loan officers take turns to stay in the office to give the talks.

The workspace of a loan officer is not a desk; it is the field (the countryside for rural and the streets for urban loan officers). Loan officers spend most of their time out of the office visiting potential clients, re-visiting some new clients or just taking a look at the region in search of new opportunities. In a normal day, they will be out around seven hours. Rural loan officers will use up to two hours for transportation purposes only, while urban loan officers may come and go from the office when the market location is close by.

Rural loan officers will see from three to seven clients in each field visit. A third of these are new clients, a third are old clients being visited for new loans, and the rest are spotted on the road just passing by. Given the density of population in the urban area, an urban loan officer will see from ten to eleven clients during each field visit. A rural loan officer will take up to an hour to visit a new client, while an urban loan officer takes no more than forty minutes. In both cases, the time spent with an old client for a new loan is less than half the time spent in the first visit.

When the loan officers go back to the office in the late afternoon, they spend an hour to organize the information and to coordinate the workload for the next day. A common practice among Calpiá's loan officers is to use Saturday morning to organize their files. They also spend a couple of hours on Saturday afternoons and Sundays to prepare credit evaluations for the coming week. During a peak season, loan officers customarily work a few more hours on Sundays. Other activities that happen no more than once per month are: the seizing of collateral from a defaulter, a visit to the central office to present a large loan, and following up on the formalization of a mortgage loan.

6.7 The Loan Officer's Output: A Few Indicators

Measures of productivity require detailed data. A few simple indicators, nonetheless, can illustrate the workload of loan officers. Table 4 shows information classified by type of loan officer (rural versus urban) based on sample data. These numbers are a result of the loan officer's efforts and the constraints faced in each location (*e.g.*, market saturation differs with branch location).

There are important differences between the portfolios of the two groups of loan officers. To begin with, the number of clients reached by a Calpiá loan officer is large. A typical rural loan officer works with almost 400 people and his urban counterpart with close to 300. At the same time, a typical rural loan is also larger than a typical urban loan. These comparisons are biased, however, because rural loan officers never lose their portfolio of repeat clients. This happens, nevertheless, as urban loan officers lose their best clients each month to the category of

preferred clients. Once a client graduates to the preferred category, he is out of the portfolio of the urban loan officer.

Another interesting feature is the relative importance of women in the portfolio of urban loan officers. This merely reflects features of these market niches. This is not a result of any explicit targeting but only of differences in the environment.

Table 4. Financiera Calpiá: Indicators of Portfolio per Loan Officer

		Rural Loan Officers	Urban Loan Officers
Median number of clients		390	283
Median Portfolio		US\$ 281,429	US\$ 136,000
Loan size(median of averages)		US\$ 721	US\$ 548
Proportion of women in the portfolio		30 percent	63 percent
Last month processing of	New Clients	35 percent	17 percent
	Repeat Clients	65 percent	83 percent

Source: Authors' calculation based on interviews.

The loan officers cited three main reasons why people leave Calpiá:

- (a) They have accumulated too many days in arrears; thus, they have become automatically disqualified for any new loan.
- (b) The borrower does not need a new loan.
- (c) Some good clients leave Calpiá because they feel the organization is too stringent in its requirements.

6.8 The Carrots for Efficient Behavior: Performance-Based Wages

The measures of productivity discussed above reveal the excellent performance of Calpiá's loan officers. This performance is outstanding in two ways: performance steadily improves over time and actual performance compares well to other peer organizations (Microbanking Bulletin, 2000). This section explores the structure of incentives in place at Calpiá that contribute to this excellent performance.

Calpiá offers two components of the pecuniary rewards for its loan officers: a fixed salary per month and a variable bonus depending on performance. Loan officers and credit coordinators thus earn a variable remuneration contingent on **individual** performance. This mechanism of compatible incentives is needed given the large discretionary component in the loan officer's behavior and the difficulties to measure their effort.

These monetary incentives do not tell, however, the whole story. Non-monetary incentives also play an important role in influencing the behavior of loan officers but these other

incentives are more difficult to characterize. Social status and identification with the mission of the organization are good examples of non-monetary incentives that are strong among the organization's staff. An understanding of the structure of incentives is important as any change in this structure has implications for loan officer behavior and thereby for the quality of the services supplied and the financial results of staff performance, that is, for actual outreach and sustainability outcomes..

Since the loan officers carry out most of the lending activities of Calpiá, the effectiveness of the monetary incentives offered to them is critical. The fixed portion of the remuneration for new loan officers (urban and rural) amounts to 3.000 Colones (US\$344 per month). The second component results from a formula that differs for urban and rural loan officers.

The formula combines the results of different and competing lending activities. All loan officers face time constraints and, therefore, there is always the possibility that they will invest less time in one activity and emphasize others. Their behavior is very sensitive to the components of the formula. As a result, the organization has to be careful in the design and updating of the formula. The formula is a combination of stock indicators (portfolio size, number of borrowers), flow indicators (numbers of new borrowers and new preferred borrowers), and strategic ratios (arrears).

The marginal contribution to the loan officer's income of spending more time in one lending activity over another depends on the pre-established goals and on the current values of the relevant parameters. Some circumstances (branch and clientele location, degree of market saturation or established goals) have different effects on the behavior of a loan officer with a large portfolio versus one who is just starting. By the same token, the marginal effects on income are different if the circumstances vary (for example, with the entry of a new NGO in the region), for the same loan officer. It is difficult to design a system where effort is always rewarded equally. Even at the branch level, where loan officers are assigned similar and exclusive zones, it is impossible to guarantee that business opportunities will be the same. Some loan officers find it easier than others to reach certain goals even when their levels of effort are the same.

7. Summary of Findings

Financiera Calpiá is one of the few examples of a successful rural lender in Latin America. Its main contribution to the development of promising practices in rural finance has been the transfer and adaptation of its proven lending technology from the urban to the rural areas. This has been an important contribution for two reasons. On the one hand, the resulting increase in the supply of rural financial services has included not just the funding of non-agricultural activities in rural areas but also the more difficult task of funding agriculture proper. On the other hand, the transfer has responded to a deliberate and systematic effort to adapt the lending technology to the rural areas. This rigorous approach has made it possible, first, to better understand the nature and magnitude of the challenges of the task and, second, to evaluate the adjustments that have been necessary to overcome the difficulties of agricultural lending.⁸

The process has not been easy. It takes time to learn about the characteristics of the new environment. In this new environment, Calpiá has used different strategies to overcome the usual problems of covariant risk, information, incentives, and contract enforcement. It takes time to find specific ways to successfully overcome these challenges in a particular country. In Calpiá's case it has taken several years. In other places, the development of a new micro-lending technology has taken about a decade (Gonzalez-Vega *et al.*, 1997). Hopefully, the lessons from these experiments will make it possible to shorten the duration of this inevitable gestation period. The overall process is complex and it involves experimentation, learning by doing, formalization of new procedures, staff professionalism, and enough size to generate economies of scale.

Although the learning process has not stopped, already important lessons can be learned from Calpiá's approach to rural lending:

- (a) The stock of knowledge needed to understand agricultural activities and to establish farm repayment capacity is considerably more complex than what is needed in urban environments. To address these challenges, Calpiá tends to hire rural loan officers with formal training in agriculture and, if possible, with some practical experience in agriculture. This increases the costs of screening and monitoring borrowers.
- (b) The process of entering new markets (opening a new rural branch) follows a market study conducted by the loan officers themselves. In most cases, the market study will be undertaken by the new loan officers who, in turn, will be in charge of the new branch. The objective of the market study is two-fold. First, it facilitates a better design of products (getting to know the demand). Second, it gives loan officers a first taste of the market they will face. The organization is very committed to responding to specific demands for financial services.

⁸ While the exercise has required the commitment of all the staff of the organization, two individuals are pioneers in this effort. One is Juan Buchenau, who was responsible for the IPC technical assistance that made this exercise successful, and the other one is Aristóteles Esperanza, the leader of the experience within the organization.

- (c) Correlated incomes leading to systemic risk are an acute problem in rural areas. The resulting challenge is addressed by Calpiá at three different levels. First, at the household level, Calpiá emphasizes diversification of the household's portfolio of activities. This implicit requirement does not appear to be a problem for small farmers, whose activities are diversified anyway, but it would be a constraint for medium size and more specialized farmers. Second, at the rural portfolio level, Calpiá responds to a global demand of credit. All rural activities (not just agriculture) are potentially fundable. Finally, at the level of total the portfolio, the urban-rural nexus allows Calpiá to decrease its overall risk. This happens not because one type of activities is necessarily less risky than the other but because correlation between rural and urban activities tends to be lower than correlation inside each sector.
- (d) The types of assets accepted by Calpiá as collateral are diverse. In order of importance, acceptable assets are household appliances and furniture, machinery, livestock, and mortgages on the house, the plot of land or both. Household appliances and furniture are preferred because they are easier to move and sell in case of default compared to larger and more specialized items (such as machinery). These collateral requirements do not preclude renters from getting a loan. Calpiá has shown that lending to farmers who do not own land is possible. This has extended the universe of rural borrowers.
- (e) Another innovation has been the responsiveness of Calpiá to the idiosyncracies of rural conditions. Seasonal credit is offered in peak months and the terms and conditions of the loan contracts respond to agricultural cycles.
- (f) Accessibility to the household is a key component of the technology. It permits continuous contact between loan officers and borrowers (low-cost monitoring) and the seizing of collateral assets if necessary (credible contract enforcement). Thus, creditworthy farmers living in remote areas with difficult access are not considered potential clients.
- (g) Calpiá tries to differentiate itself from the competition by offering a service with little red tape (in contrast to the BFA) and by signaling a vocation for permanency (in contrast to NGOs). This differentiation increases the present value of a long-term relationship with the organization and strengthens the structure of incentives to repay.
- (h) The process of expansion into the rural areas has been cautious. Loan officers evaluate all loans, no matter how well a borrower has behaved in the past. In the urban areas this is no longer necessary, as preferred clients are granted a credit line once they have accumulated a good repayment record. Routine evaluations in rural areas obviously increase costs, but these evaluations allow Calpiá to learn more about this new market niche.

From these lessons, several general features stand out in Calpiá's strategy of expansion into the rural areas.

- (a) First, a well-tested lending technology had already been developed for the urban areas. If the original lending technology were weak in its urban applications, there will be little chance of success in its adoption in the rural areas. The question is not simply to promote technological transfer; the key question is **which** technology to transfer and how to adapt it to the new circumstances.
- (b) Second, there has been a careful and gradual adaptation of the urban lending technology to the rural setting. In expanding into the rural areas, the general principle has been to begin with the easier challenges and to address the more difficult ones only as the former have been successfully addressed. This parsimony has influenced the selection of in which areas to operate on the basis of their accessibility, production risks, degrees of client concentration, diversified production baskets, and repayment culture (Buchenau, 1999). Small pilot projects, designed as experiments to learn, have preceded full-fledged expansion. Products and practices have been continuously adjusted as a result of these learning processes. With the assistance of the IPC technical advisor, the organization carefully monitored effects of design and revisions on portfolio collection, loan officer productivity, costs, and quality of service for the client.
- (c) Third, a successful transfer must be grounded on the availability of the appropriate human capital. Therefore, the selection and training of loan officers receives substantial and competent attention. Calpiá's training program is outstanding.
- (d) Fourth, the success of the technological innovation rests on its being a direct response to client features and demands, on a conservative risk management, and on sufficiently low overall costs to make the organization profitable. The organization has offered a flexible product, on an individual basis, in recognition of the nature of the farm-household enterprise unit.
- (e) Fifth, to manage systemic risk, Calpiá undertakes portfolio diversification at three levels (the household, the rural portfolio, and at the total portfolio level). Diversified households have a better chance of service, while the organization relies on the rural-urban nexus to diversify its own portfolio. Systemic risk is also addressed by a continuing monitoring of information about the environment (climate, prices, trends in yields).
- (f) Sixth, to manage idiosyncratic risks, Calpiá monitors changes in the risk profile of its clients without targeting any specific agricultural activity. The fungibility of funds is recognized and the goal of monitoring is to preserve ability and willingness to repay.
- (g) Seventh, the structure of incentives to repay has relied on emphasis on assets that the rural poor typically possess as acceptable collateral. This approach does not excluded land renters and it increases the depth of outreach.

The lending technology of Calpiá is not designed, however, to deal with more specialized (single crop) farmers. By the same token, specialized rural lenders without an urban nexus may find it more difficult to deal with systemic risk. This is an unresolved challenge in rural finance.

Also, a great deal of Calpiá's success is due to its human capital; most of its loan officers have an undergraduate degree in agricultural sciences, great experience and great motivation. In countries where human capital is scarce, wages could exert upward pressures on costs toward unsustainable levels. Rural lending is expensive; a MFO with a vocation for sustainability must price its products accordingly. In some settings, to charge high prices (interest rates and others) may be politically infeasible.

Financiera Calpiá has been, in general, a worthy example of innovation in microfinance. Success has resulted from a correct institutional vision, the ability to understand its market niche, and the development and implementation of an appropriate lending technology. At present, the strength of its lending technology is the most promising asset of the organization. The most important threats to its sustainability emerge, however, from the implicit weaknesses of its property rights and governance structures and from the need to adjust to a regulatory framework that does not fully recognize the differences of this market niche.

References

- Beneke de Sanfeliú, Margarita (2000), *Dinámica de ingreso de las familias rurales en El Salvador. Estudio de panel 1995-1997*. Documento de Investigación BASIS No. 1. San Salvador.
- Boyce, James K. (1995), "Adjustment Toward Peace: An Introduction," *World Development*, Vol. 23, No. 12, pp. 2067-2077.
- Buchenau, Juan (1997), "Financing Small Farmers in Latin America," unpublished paper presented at the First Annual Seminar on New Development Finance, University of Frankfurt, September.
- Comité Coordinador (1996), *Libro Blanco de la Microempresa*, San Salvador.
- Danby, Colin (1995), "Challenges and Opportunities in El Salvador's Financial Sector," *World Development*, Vol. 23, No. 12, pp. 2133-2152.
- Esperanza, Aristóteles (1999), "Financiera Calpiá," presentation at the Seminar on Microfinance, Banco Nacional de Costa Rica, San José.
- Gonzalez-Vega, Claudio (1997), "The Challenges of Transferring the New Lending Technologies to Reach the Poor from the Urban to the Rural Areas: Questions from Theory, Lessons from Microfinance Best Practice," paper presented at the XXIII Meetings of the International Agricultural Economics Association, Sacramento, California.
- Gonzalez-Vega, Claudio (1998a), *Research Planning Framework: Central America Regional Program*, BASIS Progress, Madison, Wisconsin: Broadening Access and Strengthening Input Market Systems.
- Gonzalez-Vega, Claudio (1998b), "Microfinance Apex Mechanisms: Review of the Evidence and Policy Recommendations," report to the Consultative Group to Assist the Poorest, Columbus, Ohio: The Ohio State University.
- Gonzalez-Vega, Claudio (1999a), "Rural Financial Markets: Challenges and Opportunities," paper prepared for the Project on Promising Practices in Rural Finance, San José: Academia de Centroamérica.
- Gonzalez-Vega, Claudio (1999b), "Servicios Financieros Rurales: Experiencias del Pasado, Enfoques del Presente," in Fernando Crespo (ed.), *El Reto de América Latina para el Siglo XXI: Servicios Financieros en el Area Rural*, La Paz, Bolivia: FUNDA-PRO.

- Gonzalez-Vega, Claudio, Mark Schreiner, Richard L. Meyer, Sergio Navajas, and Jorge Rodriguez-Meza (1997), "A Primer on Bolivian Experiences in Microfinance: An Ohio State Perspective," unpublished book manuscript, Columbus, Ohio: The Ohio State University.
- Jiménez, Ronulfo (1999), "El Entorno Macroeconómico y Financiero de CALPIÁ," unpublished paper prepared for the IDB Project on Promising Practices in Rural Finance, San José: Academia de Centroamérica.
- Lardé de Palomo, Anabella (1999). *Entorno de los Mercados Financieros Rurales en El Salvador*. BASIS paper, San Salvador: FUSADES.
- Lardé de Palomo, Anabella, Claudio Gonzalez-Vega and Aída Argħello de Morera (2000), "Household Integration to Markets as a Determinant of Rural Incomes in El Salvador," paper submitted for the meetings of LACEA, Rio de Janeiro.
- Ministerio de Economía (1998), Encuesta de Hogares de Propósitos Múltiples- 1997, San Salvador.
- Morley, Samuel. 1997. *La pobreza durante la recuperación y la reforma en Latinoamérica: 1985-1995*. PNUD, San Salvador.
- Navajas, Sergio (1999a), "Credit for the Poor: Microlending Technologies and Contract Design in Bolivia," unpublished Ph.D. dissertation, The Ohio State University.
- Navajas, Sergio (1999b), "Financiera Calpiá (El Salvador). L'adaptation au Milieu Rural d'une Technologie Urbaine de Crédit", in *Echos du Cota*, 1999-4, No. 85, p. 9-10.
- Navajas, Sergio, Claudio Gonzalez-Vega and Jeffrey Hopkins (2000), "Do Lending Technologies Exclude the Poor?", unpublished BASIS paper, Columbus, Ohio: The Ohio State University.
- Pleitez-Chávez, Rafael (2000), "Microfinanzas y Pobreza. Un Análisis de La Tecnología de Crédito de la Financiera Calpiá," *Estudios Centroamericanos (ECA)*, Universidad Centroamericana José Simeón Cañas (UCA) , San Salvador
- Ravallion, Martin (1994), *Poverty Comparisons*, Chur: Harwood Academic Publishers.
- Rivera, Roberto, *Estado de la Nación en Desarrollo Humano*, San Salvador: PNUD.
- Schmidt, Reinhardt H. and Claus-Peter Zeitinger (1996), "The Efficiency of Credit-Granting NGOs in Latin America," *Savings and Development*, Vol. 20, pp. 353-384.

Schreiner, Mark, Claudio Gonzalez-Vega, Margarita Benecke de Sanfeliú and Mauricio Shi (1998), *Notes on Methods Used in a Survey of Rural Borrowers of Financia Calpiá in El Salvador*,” BASIS Research, Madison, Wisconsin: BASIS CRSP.

Trigueros, Alvaro (2000), “Promoviendo el Desarrollo Humano Sostenible por Medio de las Microfinanzas y la Microempresa en El Salvador,” consulting report for UNCTAD/PNUD, Programa sobre Globalización, Liberalización, y Desarrollo Humano Sostenible, San Salvador.

UNDP (1999), *Informe Sobre Desarrollo Humano 1999*, New York: United Nations.

Zeller, Manfred, Gertrud Schreider, Joachim Von Braun, and Franz Heidhues (1997), *Rural Finance for Food Security for the Poor: Implications for Research and Policy*, Washington, D.C.: International Food Policy Research Institute.